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LECTURES.

BOSTON CITY HOSPITAL: CLINICAL LECTURE NO. XV.

BY DAVID W. CHEEVER, M. D.,
Professor of Clinical Surgery in Harvard University.

Caries and Amputation of the Thigh. — GENTLEMEN: Our first patient to-day is the young man whom you have so often seen, and who has caries of the femur. Deeming such an operation necessary I have proposed amputation, to which the patient and his friends have finally consented. My intention is to amputate at the location of the limit of the disease, namely, at the junction of the upper and middle third of the thigh, though I may find it expedient to go still higher. The patient dates his trouble from an exposure to cold and a subsequent periostitis. Abscesses formed and broke, and the femur then began to exfoliate. This all occurred in another institution. The patient was afterward brought to this hospital in a very feeble condition. Upon examination we found the femur apparently comminuted; fragments of bone were constantly coming away, and there evidently was a fracture. Whether the disease, which was close to the knee, had penetrated into the joint we could not tell. But since that date the joint has become involved, and now the lower end of the shaft of the femur protrudes from the wound. I think any form of repair is an impossibility, and the patient's only chance of life lies in an amputation. As an exception, I have allowed him to take an early breakfast, and just now he has been stimulated. During the operation we shall give him an enema of brandy and water, in doing which some care is necessary: (1.) The quantity of the injection should not exceed four ounces. (2.) There should not be too much brandy; the proportion of one half would be quite enough. Pure brandy shuts up the absorbents and causes irritation. This injection appears to act upon the pulse within five minutes. Sometimes a half drachm of whisky is thrown under the skin. We have the misfortune of being unable to make use of the Esmarch bandage, because of the danger of forcing the liquefied products of decomposition into the absorbents and blood of the body. I propose to make equal skin flaps, and, in order to give the patient every chance, shall do the operation under the carbolic spray and ligate with carbolized catgut, choosing a ligature of large size for the femoral artery. The trouble is that catgut ligatures become very quickly absorbed, in some cases in thirty-six to forty-eight hours. I have no hesitation in applying them to the smaller vessels, but they are not so safe for the large arteries. To guard against accidents a rubber cord will be kept loosely around the thigh for several days in readiness to be tightened. The entire operation will be done antiseptically. We shall close the flaps with carbolized silk, apply the carbolized dressing, and, unless symptoms oblige us to open sooner, leave the whole undisturbed for four days. A drainage tube will also be inserted between the flaps. As you may see, the condition of the leg is thoroughly bad. The limit of the disease and the cessation of vascularity seem to be above the middle third of the thigh. In order to arrest hæmorrhage we simply apply the rubber twist at the top of the thigh, securing it from slipping down by a loop of cotton bandage around the pelvis. I have now amputated as high as it is advisable to go at present. As it is, the femur has been cut within one and a half inches of the trochanter major. But little blood has been lost, and that is very thin and watery. The bone which remains is slightly diseased, and I think the limit of the trouble is a little higher up at a point where I can feel an exfoliating surface. In the inflamed tissues are many small vessels which cannot retract and close, and hence must be ligated. The amputated leg has been cut open, and we find that the knee-joint, in regard to the condition of which there was some question, is badly diseased, the cartilages and bone all being eroded. I have just found and removed a sequestrum in that portion of the femur which is left. It offers an illustration of the effect of local necrosis, and its removal may enable the wound to close up. If the patient do not soon succumb he will improve, but, notwithstanding the small loss of blood, the shock of the operation has given him a sharp struggle. By way of support he has had four ounces of brandy by enemata. I propose to leave the wound open twenty minntes, to see whether we cannot stop the hæmorrhage which still continues from the small vessels. This plan is very often successful, for it gives the lymph time to pour out freely. It glazes upon the surface of the wound, and thus arrests the bleeding. I do this now as a lesser risk than the completion of the antiseptic method. In my student days it was the custom to amputate in the morning, pass the sutures, leaving the long ends, and afterward put the patient aside for six hours. Then the surgeon or his assistant would gently wash out the wound, cut off the long threads, and close up the sutures. This procedure gave opportunity to watch for intermediate hæmorrhage. It of course militates against the use of the Lister method, for both cannot be adopted at the same time.

I think the best chance for this man is to leave him for a time in quiet. We often see bad cases thus improve. Half an hour of rest will probably give the patient more strength. This method is sometimes carried so far that the patient is left for twenty-four hours. On the second day the wound is found to be covered with a thick, dripping fluid, which is not blood, but fibrin in dense, stringy layers, dissolved in serum. This gives the patient a good chance, and although in opposition to the germ theory it is better in this case to take the risk of a short waiting. We will therefore leave the patient as he is.[1]

I recall one case which I saw some years ago, under the care of Dr. Buckingham. It involved a double amputation (which is rarely done at one operation) of the thigh of one side, and of the leg below the knee on the other. Both stumps were left open for twenty-four hours, and both healed. It was an expedient not to be despised, though the case itself was one of an extreme nature.

Old Dislocation of the Thumb. — The second case is one of dislocation of the thumb, six weeks old.

You see it is wholly unreduced. The head of the metacarpal bone protrudes under the skin in the thenar region. The phalanx is drawn upward and backward, and the thumb is much shortened. It is wholly useless, and the seat of neuralgic pain.

Even when recent this is a hard dislocation to reduce. The flexor tendons and the sesamoid bones get so displaced as to oppose reduction. In such recent cases subcutaneous section of the flexor tendons is sometimes resorted to. In this case too long a time has elapsed to hope for a reduction. I see no resort but to cut down and remove the projecting bone, and excise the joint, then replacing it on a splint.

We should expect anchylosis, but might get a false joint. Either would be better than the present condition. The operation here could be well done by the Lister method. The patient is not yet ready to assent to an operation, and we must therefore leave her as she now is.

Fracture of the Outer Condyle of the Humerus, and Anchylosis. — This boy, nine years of age, fell from a derrick three weeks ago, and struck the elbow of his right arm.

Notice the difference in the width of the two elbows. The olecranon processes are distinct and perfectly alike in both arms. They are therefore probably sound. The inner condyles also have their normal shape, but the outer condyle of the right arm is lost in a rounded swelling formed by callus, which exuded after the fracture at this point. For this reason the boy cannot bend the arm properly, neither can he entirely straighten it. As already mentioned, the olecranon and inner condyle are in place, and the radius rotates without crepitation. The outer condyle alone has been fractured. The arm has been kept on a splint, and is now immovable. In little children it is well, in case of fracture, to take off the splint at the end of the first week, and submit the limb to passive motion of slight degree, and again at the end of a fortnight. After a lapse of three weeks I usually remove the splint altogether, and use passive motion daily.

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[1] No hæmorrhage followed this operation, and the patient did well.

What I advise here as treatment is to shower the part with hot water, and use moderate passive motion. In this way I think the joint will recover a good power of movement.

Necrosis of Ungual Phalanx. — Five years ago, by a felon, this man lost the last phalanx of his index finger. Five months ago he bruised the end of the second finger, and there has since existed this open sore. The bone is entirely denuded of tissue, and, as it sometimes happens in felon, it will be necessary to remove the distal phalanx. In doing this I hope to save the nail. The proper incisions split the finger down through the pulp as far as the joint, both above and below the bone. Having made these cuts, I show you the previously denuded bone. I now trim the phalanx perfectly clean, and remove it entire. By this method I have preserved the nail and matrix above, and the pulp of the finger below. This is far better than removing them with the bone, for we have more length and a protecting nail. We now unite the parts by sutures, and pass a strip of plaster with moderate firmness over the nail and around the end of the finger.

Hysteria. — We have in the next room a woman who affirms she has a pin in her throat. This is probably one of those hysterical cases in which the condition is imaginary. This woman says the pin has been three weeks in her throat. If so it is a very quiet pin, for there has been no laryngeal spasm and no salivation, symptoms for which we naturally look when there is a foreign body in the air passages or œsophagus. We will keep this patient under observation for a day or two, and watch her. We do this before exploring the throat more roughly, which at present we are not justified in doing. Meanwhile we shall make a laryngoscopic examination.

Always distrust the reality of a case of foreign body in the throat when the patient, after the lapse of weeks, has no cough, no croup, no salivation, no abscess, and no emaciation.

[NOTE. This case was carefully examined by means of the laryngoscope, merely as a matter of duty. As suspected, no foreign body existed in the throat.]

TWO CASES OF CYSTINURIA.[1]

BY EDWARD S. WOOD, M. D.,
Professor of Chemistry in the Harvard Medical School.

THE first of the following cases occurred in the Massachusetts General Hospital under the care of Dr. Minot, by whom I am kindly permitted to make use of the hospital record. The urinary examinations were all made at the laboratory of the Harvard Medical School, either by myself or by Mr. W. N. Swift.

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[1] Read before the Boston Society for Medical Observation, March 3, 1879.

Case I. M. J., female, single, aged twenty-nine, born in Nova Scotia, entered the hospital May 3, 1878, with symptoms of acute rheumatism. She had rheumatic fever sixteen years ago, but has had no palpitation or dyspnœa since. Examination revealed a slight systolic murmur audible below the nipple, and also at the left edge of the sternum in the second interspace and over the third rib. Micturition was easy, and there were no symptoms to call the attention to the urinary organs.

May 7th. She became quite maniacal, and in the afternoon complained of pain in the lower part of the abdomen. Since then all of the urine passed has been bright red with blood. No clots.

May 9th. Urine smoky and red, acid, specific gravity 1024, urophæin, urea, and the phosphates increased, indican diminished, chlorides normal, and one per cent. of albumen; it contained a large amount of sediment which consisted of much blood, few granular casts, numerous pelvic epithelial cells, calcic oxalate crystals, and microscopic concretions of either uric acid or calcic oxalate.

Micturition became frequent, and but little urine was passed at a time. The patient complains of no pain except across the front of the abdomen on motion.

May 11th. Is perfectly rational, and states that after the attack of rheumatism sixteen years ago she had a similar attack of hæmaturia.

May 14th. Urine still rather high colored, alkaline, and with considerable sediment, in which were found numerous cystin crystals, with blood and pus corpuscles, pelvic and renal epithelial cells, and few hyaline and granular casts.

May 15th. Amount of urine three hundred and sixty cubic centimeters in twenty-four hours. It was acid, and the sediment contained a large amount of blood and pus, much bladder or vaginal epithelium, and numerous cystin and calcic oxalate crystals.

May 16th. The urine was red and smoky, acid, and specific gravity equal to 1035½. The clinical analysis gave the relative amount of the constituents as follows: both coloring matters and the phosphates much increased, urea increased, chlorides slightly diminished, and albumen 0.6 per cent. The sediment contained more pus and blood than on the 15th, numerous clumps of cystin, numerous calci coxalate crystals, pelvic and bladder or vaginal epithelial cells, and hæmatoidin (bilirubin) crystals, which were first noticed by Mr. W. W. Gannett. The quantitative examination of the urine resulted as follows: —

Total amount of urine in twenty-four hours = 410 cub. cent.
" " urea " " = 16.810 grams.
" " chlorine " " = 1.369 grams.
" " P_2O_5 " " = 1.435 grams.
" " cystin " " = 0.013 grams.
" " albumen " " = 3.272 grams.

May 17th. No pain except across abdomen on motion, and in the region of the bladder after micturition. Amount of urine in twenty-four hours equals five hundred and ten cubic centimeters.

May 18th. No evidence of a calculus found on examination of the bladder; the interior wall feels somewhat rough and possibly sacculated.

May 21st. Amount of urine in twenty-four hours equals five hundred and twelve cubic centimeters.

May 23d. Three hundred and eighty cubic centimeters of urine in twenty-four hours, dark in color and alkaline. The sediment contained pus, triple phosphate, urate of ammonium, vaginal or bladder epithelium, and little blood. No cystin could be detected in the sediment, nor by evaporating a drop of the urine to dryness on a glass slide.

May 24th. Amount of urine in twenty-four hours equals four hundred and ten cubic centimeters.

May 25th. More pain in lower part of abdomen, micturition very frequent, scalding and painful, the pain lasting for some time afterwards. Urine alkaline when passed.

May 27th. Discharged at her own request.

In this case, in addition to the cystinuria, the presence of both the rhombic and feathery crystals of hæmatoidin (bilirubin) in the urinary sediment is worthy of notice. So far as I am acquainted with the literature of the subject there has been but one other case reported, although hæmatoidin has frequently been found in old blood extravasations in the kidney. In that case, which is recorded by Beale,[1] the crystals appeared in the urine two weeks after renal hæmorrhage resulting from an injury to the side. The only plausible explanation of their appearance in this case appears to be that in the former renal hæmorrhage, sixteen years before, an extravasation of blood into the renal tissue took place, which in the present attack became connected with the renal tubules, and the hæmatoidin was thus set free.

I have attempted to obtain a recent specimen of the urine and the subsequent history of the case, but have been unable to learn the whereabouts of the patient. It is, however, probable that the cystinuria has persisted to a greater or less extent, although the cystin may not be deposited as a sediment or concretion; even if it is thus deposited, the concretions, which are very often of small size, are more liable to be passed without notice by females than males on account of the larger size of the urethra; hence the greater frequency of the detection of the disease in males than females.

It is probable that the first report of the sediment in this case (May 9th), that is, that the concretions consisted of calcic oxalate or uric acid, is more or less erroneous, and due to a hasty diagnosis on my part, and that some of them really consisted of cystin.

The small amount of urine in this case is also remarkable, the quantity not exceeding six hundred cubic centimeters on any day during the entire period, the last measurement being made on the 24th, three days before her discharge.

The non-detection of the cystin in the sediment on the 23d, and, if my memory serves me correctly, on the 24th also, may be explained by the ammoniacal fermentation of the urine and decomposition of the cystin, although it may and frequently does occur in the sediment with triple phosphate, since it is not dissolved by the carbonate of ammonium; yet it always disappears in a short time, being readily decomposed in ammoniacal urine with the evolution of sulphuretted hydrogen.

The coexistence of renal disease is rendered probable by the presence of renal casts in the sediment; yet these may have been only temporary, and due to the congestion or following the hæmaturia. The presence of Bright's disease of the kidney could be detected with certainty only by subsequent examination of the urine.

Case II. P. M., aged thirty, a roofer by occupation, was born in Ireland. Family history good. His father and mother are both living, and have always been well. He has two brothers and two sisters in Ireland, and one brother and two sisters in this country, all of whom have always been free from any symptoms pointing to the urinary organs. Patient has a sallow complexion, but reports himself as being well and strong, except when in pain. His habits are good; he uses tobacco moderately, and never drinks to excess. His appetite is pretty good. His bowels are very apt to be constipated, and if he does not have a dejection for three or four days he is quite sure to have an attack of nephritic colic, accompanied, or usually just preceded, by gastric disturbance, with vomiting of bile. The stools are natural in color.

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[1] Urinary and Renal Diseases, page 389.

The attacks of pain began about five years ago, and he thinks that he has averaged about one a month during the past year. It is always on the right side, of the usual character of that in renal colic, and often lasting steadily for twenty-four hours. Some relief is obtained by bending over a hard surface, and pressing the clenched hand deeply into the abdomen at the seat of pain, when he states that sometimes he can feel a grating or "clicking." During the attacks, and usually for a short time afterwards, micturition is somewhat more frequent, and the amount of urine passed somewhat less than usual. At these times the patient keeps about his work if possible, since he thinks that he recovers more quickly than if he lies in bed. Micturition has never been suddenly interrupted, but the gravel is passed through the urethra quite easily and without pain.

The first intimation that he had "gravel" was by seeing a large number of the concretions upon a tin roof, upon which he had passed his urine. He has noticed that the urine is quite red (bloody) after the severer paroxysms. Drinking three or four glasses of ale has frequently been followed by an attack of colic. He drinks a large amount of water, and considers that he recovers from the colic more quickly when he drinks freely of water than when he does not.

In January, 1878, the patient first consulted Dr. Whittier at the out-patient department of the Massachusetts General Hospital, for symptoms of renal calculus; at this time the urine was examined with the following result: —

It was pale, slightly acid, specific gravity equal to 1007, and with a considerable amount of sediment. The urophæin, urea, and phosphates were diminished, the chlorine slightly diminished, and the indican normal. There was a slight trace of albumen. The sediment contained some pus and blood, an excess of epithelium from the kidney, pelvis of the kidney and ureter, and crystals and very small concretions of cystin. These concretions varied in size from microscopic aggregations of cystin crystals to that of the head of a large pin.

He was given dilute nitromuriatic acid, and directed to return and bring a specimen of his twenty-four-hour urine and all of the calculi which he could collect; very little or nothing more was seen of him until March 4, 1878, when he brought what was reported to be the twenty-four-hour urine, but which he now tells me was not the total amount passed in twenty-four hours.

This urine was pale, acid, specific gravity equal to 1011½, and with considerable sediment. The urophæin, indican, urea, and uric acid were relatively diminished, and the chlorides and phosphates normal. There was a trace of albumen, and the sediment consisted of pus and blood, pelvic and renal epithelium, and cystin crystals. Quantitative analysis of the urine showed: —

Total amount of urine = 1420 cub. cent.
" " urea = 23.988 grams.
" " uric acid = 0.085 grams.
" " P_2O_5 = 1.420 grams.
" " NaCl = 5.680 grams.
" " cystin = 0.085 grams.

After this nothing more of importance was heard from him until February 23, 1879, when I saw him and obtained the above history and another specimen of the urine. This was about normal in color, acid, specific gravity equal to 1008½, and with a slight amount of sediment. The urophæin, urea, uric acid, chlorine, and phosphates were relatively diminished, and the indican and sulphates normal. There was a trace of albumen, and the sediment consisted of pus and blood, numerous cells from the pelvis and ureter, and few cystin crystals. The amount of urine passed at one micturition was six hundred and fifty cubic centimeters, which was secreted in about two hours. This amount contained 7.475 grams of urea and 0.260 grams of P_2O_5.

This case is interesting as showing that inflammation of the pelvis of the kidney and ureter may exist for a long time without involving the kidney itself. No casts were detected in any of the specimens, and from the quantitative examination the kidneys appear to be doing the normal amount of work.

The symptoms and pathological appearances of cystinuria are only those which are secondary to the separation of the cystin from the urine in the form of concretions, which vary much in size, from mere microscopic concretions to that of large calculi, and may by their irritation produce inflammation of that portion of the urinary tract in which they are deposited. There are no symptoms of the formation of the cystin, and if dangerous complications do not arise the patient's life is not endangered. Thus, in one case, a man, forty years of age, had passed cystin gravel for thirty years, and another man, aged forty-nine, had had occasional attacks of renal colic for twenty years. Dr. Prout considered the disease to be associated with fatty liver, but I have met with only one case in which this association existed, namely, one reported by Ultzmann,[1] in which death took place about four weeks after removal of a cystin calculus by lithotomy, and the liver showed superficial yellow fatty spots. In this case neither cystin nor taurin could be detected in the liver, spleen, or kidneys. Scherer, however, found cystin once in the liver of a drunkard, and in one case, that of Marowski,[2] the cystinuria was considered to be a vicarious elimination of taurin, on account of the absence of bile in the intestine; in this case, however, the cystinuria was temporary, while the acholia was permanent. Bence Jones[3] reports a case of cystin calculus associated with granular degeneration of the kidneys. Mr. Luke also met with a case of extensive degeneration of the kidneys, and F. A. Southam[4] mentions one case in which there was abscess of both kidneys, and the ureters were thickened and dilated.

Hereditary predisposition appears to be the only known cause of cystinuria. There are so many cases now recorded of the existence of the affection in several members of the same family, that the influence of hereditary transmission cannot be doubted. Toel[5] reports the cases of two sisters. Of twenty-two cases collected by Poland ten occurred in four families. T. Pridgin Teale described its presence in three members of the same family, and Dr. Golding Bird has recorded its existence in the same family in three successive generations. Marcet describes it in two brothers, and other cases also are reported.

[1] Wiener med. Wochenschrift, 1871, Nos. 13 and 14.

[2] Deutsches Archiv f. klin. Med., iv. page 449.

[3] Medical Times and Gazette, July 8 and 22, 1865.

[4] British Medical Journal, December 23, 1876, page 817.

[5] Annalen der Chemie und Pharmacie, vol. xcvi. page 247.

Of fifty-two cases collected by Niemann,[1] thirty-seven were males, fourteen females, and one not mentioned, and of these fifty-two cases the age was recorded in thirty-five, as follows: —

	Males.	Females.
From 1 to 10 years	5	0
From 11 to 20 years	3	2
From 21 to 30 years	9	3
From 31 to 40 years	7	0
From 41 to 50 years	4	2
	28	7

Cystinuria, therefore, is met with in infants and adults; it is rarely seen in old age. Occupation and condition in life appear to have no influence, and no constitutional condition seems to cause it, many of the cases recorded occurring in persons in perfect health. Some authors have associated cystinuria with rheumatism, and Salisbury distinguishes a uric, oxalic, phosphatic, and cystic rheumatism, but in most cases there is no trace of rheumatism. One of the cases reported above was associated with acute rheumatism. Anæmia and chlorosis are frequently present, and appear to be more the effect than the cause of the cystinuria.

The cystin is probably not formed in the kidney, but is only eliminated by it, since Dewar and Gamgee[2] found it in the sweat, and silver coin carried in the pockets of cystinuria patients is very quickly blackened by the sulphuretted hydrogen evolved, a fact which should always lead to the examination of the urine for cystin.

Bence Jones[3] considered it to be a disease of diminished oxidation; that it is a diathesis like the uric and the oxalic, both of which products of diminished oxidation may be present in the urine together with cystin; and that cystin has the same relation to albuminous food that grape sugar does to the amylaceous. Under normal circumstances it is probably oxidized to urea, carbonic and sulphuric acids.

The diagnosis of cystinuria can only be made with certainty by an examination of the urine. When cystin exists as a concretion, it is also usually found in the sediment in the form of colorless hexagonal plates, the angles of which measure one hundred and twenty degrees, or single quadrilateral prisms or groups of prisms. It also occurs in solution in the urine, and can for the most part be precipitated by acetic acid; the amount of cystin in the sediment is increased by acid fermentation of the urine. It decomposes in the urine readily, and its decomposition is attended with the evolution of sulphuretted hydrogen, since it contains twenty-six per cent. of sulphur. Its amount in the urine undergoes considerable variation at different times, and it may temporarily disappear. Any condition which diminishes the oxidizing power of the system may increase its amount. The urine always contains more sulphur (not in the form of sulphuric acid) than under ordinary circumstances; this can readily be detected, even when no cystin can be found, by rendering the urine strongly alkaline with potassic or sodic hydrate, and boiling the mixture with one or two drops of a solution of acetate of lead, when a black precipitate of sulphide of lead will be formed immediately. Albumen, blood, and pus will give the same reaction, and must first be separated from the urine in the usual way, by boiling with acetic acid and filtering. Beale and Bartels found that the night urine contained more cystin than the day urine, and that its amount was increased by physical exercise.

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[1] Deutsches Archiv f. klin. Med., xviii. page 232.

[2] Journal of Anatomy and Physiology, 1870, ii. page 142.

[3] Loc. cit.

The amount of urine passed in cystinuria is usually slightly increased, but sometimes it is much increased, and sometimes diminished. In Bartel's case one thousand and seventy-eight cubic centimeters was the average amount of eight days, and in Ultzmann's case three thousand cubic centimeters was the average. The urine is, as a rule, acid, of a pale yellow color, sometimes has an oily appearance, has a specific gravity of about 1015, and a considerable amount of a whitish sediment, which usually contains cystin crystals with or without those sediments found in inflammation of the urinary tract, according as such inflammation exists or not.

One peculiar feature of almost all cases is the great diminution in the amount of uric acid. This has been frequently noticed. Strohmeyer mentions it; Prout in both of his cases speaks of it, — in one there was only a mere trace, and in the other only 0.0016 per cent.; Venables found only a trace; Willis and Ivanchich found it absent; in Beale's case in one specimen, when only a trace of cystin was present, the uric acid amounted to 0.05 per cent., and in two other specimens, when cystin was present, the uric acid was absent; in Bartel's case alone the uric acid was abundant; in Niemann's case the mean of three estimations gave 0.007 per cent. of uric acid.

Another peculiar feature of cystin urine is that the sulphuric acid increases with the increase of the cystin, and *vice versa;* this was shown by Niemann's analyses. The daily amount of cystin in his case was from 0.42 to 0.59 grams.

In Loebisch's case,[1] that of a healthy medical student aged twenty-four, the amount of urine and urea was about normal; the uric acid amounted to 0.5445 grams, the cystin to 0.393 grams, and the SO_3 to 2.439 grams, which was the average for ten days. On one day the phosphoric acid amounted to 3.01 grams, and the salt to 11.08 grams. In three hundred cubic centimeters of the urine the biliary acids were readily detected by Hoppe-Seyler's method.

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[1] Annalen der Chemie und Pharmacie, vol. clxxxii. page 231.

The treatment should be aimed at increasing the oxidizing power of the system. If the disease is associated with anæmia and chlorosis the iron preparations are indicated. Prout recommended the long-continued use of nitromuriatic acid, which our patient considered was of much benefit to him. Bartels, however, found it of no value after two months of steady use. He considers that, since the only danger lies in the tendency to form concretions, and since we cannot prevent its formation, the indication is to furnish solvents for it by giving diluent drinks; and in his case, in which, however, the amount of urine passed was habitually small (one thousand and seventy-eight cubic centimeters), the patient was free from danger when the amount of urine was increased by Seltzer water to fourteen hundred or fifteen hundred cubic centimeters.

Alkalies, although dissolving cystin, should not be used, since the cystin is sometimes deposited in alkaline urine, and since the earthy phosphates, which are sure to be separated by alkalies, may be deposited upon and increase the size of a cystin concretion already existing.

THE PSYCHOLOGICAL AND PATHOLOGICAL NATURE OF GENERAL PARALYSIS AND ITS TREATMENT.

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Psychology. — It is doubtless true that in certain states of the brain, mental action or the actions of the higher centres of the brain may at times become automatic, and may be performed without even the intervention of consciousness. A constant repetition of any given mental action causes it to become organically registered in the brain centres; so that while at first a series of thoughts are performed consciously by the individual, they ultimately become reflex, responding to the recognized stimulus without consciousness, and independent of any effort or intervention of this condition. It is owing to injury of this mind power that we must look for an explanation of the mental symptoms of general paralysis.

Two classes of mental actions will necessarily be involved in this disease: first, those which are of so recent an origin as not to have become organically registered; and second, those which are still unable to be performed without conscious interference. One of the most powerful instincts or ideas in the human mind is the importance of self. In a healthy state we draw up and surround ourselves with an ideal self, which, if we are healthy minded, finds no expression. If the power to which all mental processes are due be impaired, those actions, amongst others, will be affected which are the most detailed and elaborate, the most varied, the least rigidly defined, and the least organically registered. Of all mental processes, those involved in the consideration of self are at once the most general, extensive, changeable, and complicated, as well as the most vague and undefined. Self occupies in the mind the widest, most frequent, and most capricious attention. As in general paralysis this mind power is the seat of the main lesion, the psychical processes concerned in the consideration of self will be the first implicated, and will present the most prominent symptoms. In general paralysis, the ideal self runs riot, — the man, not as he is, but as he has pictured himself, and as he would have himself be. In the inception of his disease the patient feels himself "bang up" and "perfect;" everything is "elegant" and rose-colored. His wealth is unbounded, and he orders "a million" cigars and palaces built of gold and diamonds with the utmost indifference and nonchalance, thoroughly believing in his capacity to do all these things. The patient's delusions are markedly progressive in number, absurdity, and exaggeration. Being rather feeble, he imagines himself capable of immense sustained exertions. In general paralysis, the mental processes which are the most automatic are the last to be affected; the patient entertains perfectly reasonable ideas about his actual self, and, although possessing thousands of ideal dollars and estates, will tell you correctly that he earns but ten dollars per week, as this idea has, from frequent and constant repetition, become automatic. In the same manner, a patient under my care tells me correctly that his suit of clothes cost fifteen dollars in London, and in the same breath says that he has ordered a silk velvet suit with diamond buttons. At the present moment he considers his health perfect, but acknowledges that in the past he has had many sicknesses and infirmities. Matters of recent occurrence which have not had opportunities for repetition, and so have not become organically registered and automatic, and which therefore involve consciousness, are far more dependent upon mind than matters of earlier date which have been so frequently repeated as to acquire automaticity. For this reason, patients suffering from general paralysis, while stating with accuracy events and detailed accounts of the past, can give but a very vague and confused history of the events of the past few days or weeks. This defect in memory is consequently one of the most noticeable symptoms in the early stage of the disease, and we notice it particularly in persons of methodical habits. Leaving this interesting field of the psychology of general paralysis, we proceed to notice its pathology.

Pathology. — The pathology of general paralysis is very obscure, and invites especial attention at the hands of the profession. The fundamental lesion of this disease is, in the writer's opinion, a general diffused interstitial encephalitis which involves accessory structural changes of different character. The posterior columns of the cord are also not unfrequently affected. The primary and most palpable form of the interstitial degeneration is colloid, where the transformed matter is presented under the aspect of a hyaline substance, semi-transparent, slightly refractory, and at certain points of a bluish tint. When existing in isolated masses of small size, it preserves the form and aspect of whatever cerebral elements it may have invaded. This product of inflammation does not appear to be at all of a tubercular nature, neither is it fatty, being insoluble in ether or chloroform. It is not amyloid, because it is unaffected by tincture of iodine, solutions of potass and soda, and is dissolved in strong acetic acid. It is not organic, as there is no reaction with hydrochloric acid. Its solubility in hot water, especially when potass or soda is added, would seem to indicate a peculiar chemical composition. When we examine the cerebrum as the principal seat of paresis, we find the ependyma of the ventricles to be the centre, or perhaps one of many centres, of that destructive process which is indicated by the symptoms of general paralysis, which affects all parts of the encephalon, and produces those secondary pathological appearances which have previously been identified as the cause of the disorders of motility and sensibility which follow. The progress of the morbid degeneration from the point where the ventricles have become dilated, their ependyma thickened, where their surface, especially in the fourth ventricle, is covered with granulations, is probably upwards along the connective, involving all tissues as well, and is gradual and insidious, and can be traced only by means of the more advanced alterations in structure. This interstitial irritation, however disseminated, is propagated by nuclear proliferation, and invades the white matter in common with the cortical substance, and also the capillaries, which are thickened, tortuous, and massed together. The cells of the cortical portion are sometimes found infiltrated with granulations, but retaining their form. This is found in the third stage of the disease. It is in the middle and inferior portions of the gray matter that the cells are observed to have brilliant nuclei tending towards colloid, while their normal aspect is preserved. The walls of the cell nearest the lesion are transformed into a shining, refractory hyaline substance, the colloid infiltration having been propagated to both. The microscopic as well as the naked-eye appearances, may arise first in the brain, and subsequently in the medulla and cord, or they may appear first in the cord and medulla, and afterwards in the brain; and they may also show themselves simultaneously. If the brain be primarily attacked, the psychical signs predominate, or are exclusively manifested. If the medulla be the primary seat of the disease, muscular pain, tremor, and ataxic symptoms, spreading gradually to the lips and tongue, and disturbance of the internal viscera corresponding to the portion of the spinal column involved, precede alienation and increase the difficulty of diagnosis. Finally, when the whole cerebro-spinal axis participates at once in the colloid degeneration, the characteristic indications of paresis will appear simultaneously or in rapid succession. It is important for us to bear in mind that the colloid degeneration is sometimes absent, and that we occasionally meet with it in brain disease which is only remotely connected with paresis.

I will now cite as concisely as possible the opinions of the highest authorities relative to the pathology of the disease under question.

Bayle designated the disease chronic arachnitis. Calweil considered it a diffuse chronic meningeal encephalitis, and held that it was of inflammatory origin. Baillarger observed two sets of anatomical alterations: congestion of the membranes and chronic hydrocephalus, with atrophy and softening of the brain. Brunet and Lancereaux speak of a neo-membrane or a pachymeningitis, the formation of which they explain by the exudation of a parietal layer from its walls, which is insensibly organized, and which bears the marks of fatty degeneration. The rupture of these vessels leads to the occurrence of arachnoid cysts. Erlenmaye explains the atrophy, which has been noticed, by the successive and repeated effusions of serum, the nervous elements being replaced by an amorphous substance. Frerichs considers the induration of the gray matter as connecting the pathological condition with sclerosis. The alterations in the white matter consist of hardening or softening, and increase of the fluid of the ventricles. M. Luys, who, by the way, is a very able investigator, believes that in the softening of the cortical substance of the cerebellum may be discovered the source of general paralysis, but Magnan asserts that this conviction of M. Luys is founded on exceptional cases. M. Luys gives as the result of his microscopic investigations the following results, namely, the vessels of the pia mater are of considerable size, the walls of the capillaries are incrustated with granulations, and the surface of the pia mater presents scattered cell granules and molecules and extravasated blood globules. The gray substance is greatly developed, with palpable vascular arborizations, often in the form of a plexus. The calibre of the capillariesis, almost always contracted by the incrustations of minute granules, or by cells deposited chiefly at the bifurcations. They are of irregular shapes, and often break down and discharge their contents. The nerve tubes are malformed, their contents escape, and they present little more than a mass of *débris*. Rokitansky has detected three distinct pathological appearances: first, a mass of connective tissue which embraces in its net-work the nervous element, and in chronic cases is stiff, fibrous, and induces adhesions of the pia mater; second, the varicose and broken condition of the tubes, while the cells appear swollen; third, the presence of amyloid or colloid bodies. Wedl's observations on these points are as follows: that contraction of the capillaries and small blood-vessels of the cells upon their walls leads to obliteration, their conversion into bands of connective tissue, and the consequent impairment of the nutrition of the part. Dr. Ertzbischoff attributes the hyperæmia of the cortical layers to the extreme development of the embryoplastic element in the capillaries, which, by compressing the vessel without and within, diminishes and ultimately destroys the cavity. This stasis necessitates granulation and adhesion. The majority of German pathologists localize the disease in changes of the walls of the vessels, and in the development of the connective tissue. Meschede sees the essential characteristics of paresis in the degeneration of cerebral cells, especially those of the cortical substance, which he depicts as of abnormal shape, and filled and surrounded with fatty and pigmentary granulations. Lockhart Clarke speaks of the conversion of the cells of the convolutions into pigmentary bodies, irregularly shaped and about to break up. Contemporaneously with this change, the spinal marrow, especially in chronic cases, is softened to the consistency of cream, or there may be a granular degeneration in the gray matter of the cord. In some cases Westphal has discovered granulation in the posterior column of the cord which did not extend higher than the peduncles of the cerebrum, so that the alteration could not be regarded as secondary or proceeding from the pathological condition of the convolutions.

The course of paresis generalis may very properly be divided into four stages: first, that of delirium, with or without slight physical lesions. Second, that of defective coördination of movement, exaggerated sentiments, alterations in the secretions, with continued delirium. Third, that of special dementia, with greater stupidity and degradation than in other forms, control of muscles diminished, habits dirty. Fourth, perception of impressions by external senses abolished, insensibility to pain, extinction of functions of relation and organic life, disturbance in circulation, complete adynamic ataxy, and marasmus. Optimism and ambitious ideas, as I remarked in the first part of this paper, constitute the essential mental characteristics. Previous to the establishment of thorough delirium or delusions there may be traced deviations from healthy mentalization, which, though faint or latent, should be accepted as prodromata. There is probably no doubt that the gradual evolution of physical and psychical symptoms corresponds intimately with structural alterations in the nervous centres. The employment of galvanization of the brain and cervical sympathetic with good results in some cases of general paralysis, has suggested to the author the following question: *Whether some of the principal changes occurring in paresis may not have their origin in a congestion originating in the ganglia of the sympathetic, transmitted along the spinal cord, ultimately involving every tissue within the cranium, and eventuating simultaneously in the degeneration of blood vessels, cells, and nerve tubes, and the men-*

tal and motor perversions which in so marked a manner distinguish general paralysis from all other diseases of the same class.

The diagnostic symptoms of general paralysis, aside from the exalted notions, are difficulty in articulation, with a trembling of the tongue when it is protruded beyond the teeth, often a turning of it to one side, and a general inability to use it freely, as if it were too large for the mouth, or too heavy for use, very flabby, and easily indented by the teeth; a peculiar dragging of one of the feet or legs; added to these symptoms will be found a heavy, dull expression of countenance, an unusual appearance of the eyes, and almost invariably an unequal contraction of the pupils. It requires close observation to detect these symptoms in the early stages, and careful treatment may relieve them temporarily; but although we may retard the issue of the disease by watchful care and skillful treatment, it inevitably advances insidiously to paralysis of the tongue and limbs, and enfeeblement of the mind. In the last stage, which sometimes lasts for years, emaciation succeeds obesity. Sometimes there is intense restlessness, but generally we find lethargy of body as well as of mind, this lethargy being disturbed by twitchings or epileptiform convulsions. These often terminate life, but the most frequent causes of death are sheer exhaustion and tubercular disease. With regard to the condition of the retina in general paralysis, we find the nerve changes generally proportionate to the contraction and dilatation of the pupils: the contraction of the pupils corresponding to the early or hyperæmic stage, and the dilatation of the pupils to the white atrophic condition of the optic disc. With regard to the temperature, I have noticed as an unvarying symptom that there is always a higher temperature in the evening than in the morning, seldom less than the difference of one degree, and by the thermometer we may discover the progress of the disease when we cannot do it satisfactorily by any other means. In sleepless and destructive patients the temperature is higher than in quiet cases. We may consider the average duration of general paralysis to be about thirteen months, very few patients living more than three years after the development of well-marked symptoms.

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THE EFFECTS OF AN OVERDOSE OF GELSEMINUM SEMPERVIRENS.[1]

BY F. W. GOSS, M. D.

September 10, 1878, at eleven A. M., a lady of nervous temperament and subject to neuralgic headache, mistaking the dose, swallowed a teaspoonful of Metcalf's fluid extract of gelseminum. One hour later she became alarmed on account of dimness of vision, drooping of the lower jaw, and some tingling in the extremities, which had supervened and were becoming more marked. Her regular attendant being absent from the city, a homœopathic practitioner was called in. He saw her about 12.30 P. M. What treatment was pursued I do not know, but an emetic was not administered, because, as was stated, the medicine having been taken on an empty stomach an hour and a half previously, it was probable that it had already been entirely absorbed.

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[1] Read before the Boston Society for Medical Improvement, October 14, 1878.

I saw the patient first at 4.30 P. M., five and a half hours after the ingestion of the overdose. She was entirely conscious, but believed herself to be dying. She said she had not been at all relieved of her distressing symptoms, and that in the last hour she had become much worse. About 3.30 she had attempted to eat part of a cracker, and found great difficulty in swallowing it. The loss of power over the jaw had from that time much increased, and at frequent intervals there was a feeling of faintness. As before stated, the mind was clear, but the speech was very thick; the tongue stiff; the lower jaw dropped, so that the mouth stood wide open; the eyesight was dim, so that she could not distinguish the countenances of those about her, the pupils widely dilated and not responding to light; the pulse 132, feeble; respirations 27, regular. There were no abnormal sensations about the extremities, although earlier there had been slight tingling in them. It was a comfort to her to have her jaw supported by the hand of an attendant.

I gave some carbonate of ammonia, and ordered the dose to be repeated every five minutes, while I went for an electric battery. On my return, at five P. M., the patient said she could swallow with a little less difficulty, and the drooping of the jaw seemed not to be quite so marked. I applied the handles of the battery to the sides of the face, and to the chin along the lower jaw. The sensation of the current was very agreeable to the patient, and in a short time the power to elevate the jaw was being rapidly regained, and the other sensations were becoming less disagreeable. At 5.20 P. M. the pulse was 120, and the pupils were less dilated; at 5.45 the pulse was 104, and the symptoms were much relieved. The use of the battery was then discontinued, it having been employed most of the time during the previous three quarters of an hour. The carbonate of ammonia was ordered to be taken less often. The next morning, September 12th, the report was that the patient had passed a restless night. Her eyesight was better, but it became somewhat dim on using the eyes, and her jaw drooped a little from talking. During the next twenty-four hours she had three attacks of epistaxis, moderate in amount. The bleeding seemed to relieve her head of pain and of a feeling of constriction. No other symptoms worthy of remark occurred. The patient was up and about in a day or two.

Probably if nothing had been done to counteract the effects of the overdose, it was not sufficiently large to have proved fatal, but it did produce marked symptoms and caused great alarm to the patient. The use of the battery seemed to give speedy and marked relief. I was led to employ it from reading an article by J. T. Main, M. D., published in the JOURNAL for April 15, 1869. Dr. Main states that, having through mistake taken one drachm of the fluid extract of gelseminum sempervirens, he immediately started to see a patient residing some eight miles away. Before arriving he became nearly blind. There was paralysis of the flexor muscles of the hand and arms, and loss of power in the extensors. Sensation in the hands and arms was also blunted. These and other symptoms were relieved at once by the use of the galvanic battery. The poles were applied to the hands. My patient found greater relief when they were applied over the lower jaw.

In the same journal for February 9, 1871, Dr. J. G. Pinkham reports a case of poisoning with gelseminum which nearly proved fatal. In this case there was a general feeling of numbness and oppression, followed by double vision, loss of sight, paralysis of the muscles of voluntary motion, with complete insensibility to all external impressions. The paralysis of those muscles whose function it is to elevate was more persistent than that of any others. It was stated that but forty drops of the fluid extract had been administered, but the reporter says that he placed no reliance upon the statement as to the amount, and that probably much more than forty drops had been taken.

In the same publication for October 1, 1874, Dr. J. T. Boutelle reports a case with a fatal result from an overdose of gelseminum. The patient, a male, aged twenty-four, at one A. M. took a teaspoonful of Tilden's fluid extract of gelseminum, and in about fifteen minutes repeated the dose. Toxic symptoms came on in half an hour, and the patient died at 4.45 A. M. The autopsy showed the blood to be very fluid and dark colored, with no tendency to coagulate or to turn red upon exposure to the air. The heart, lungs, spleen, and kidneys were normal. The liver was dark colored and contained much fluid blood. The stomach contained a quantity of light-colored fluid mixed with glairy mucus, and its internal surface was deeply congested and marked by tortuous, dilated vessels. Intestines normal. Brain rather pale. Sinuses not congested. The internal substance of the cerebral lobes was dotted here and there with small red points, but these were not sufficiently large or numerous to be considered of much pathological importance.

RECENT PROGRESS IN OBSTETRICS.

BY W. L. RICHARDSON, M. D.

Treatment of Pregnancy complicated with Cancerous Disease of the Genital Canal. — In the last volume of the Transactions of the Obstetrical Society of London (vol. xx., 1878), Dr. G. Ernest Herman has a most valuable article on this serious complication of pregnancy. It is based upon a careful study of one hundred and eighty cases. The general conclusions with which the writer closes the article are as follows: —

(1.) That whatever influence cancer of the uterus may have upon conception is adverse to its occurrence.

(2.) That cancer of the uterus tends to produce the intra-uterine death and premature expulsion of the fœtus.

(3.) That the growth of cancer of the uterus is, as a rule, accelerated during pregnancy.

(4.) That with cancerous disease affecting the whole circumference of the os uteri labor may be quick and easy, and the patient may recover well, and live for months afterwards.

(5.) That when delivery under such conditions is accomplished by natural efforts, expansion of the cervix usually takes place by fissuring.

(6.) That this fissuring does not usually augment the risk to the mother.

(7.) That imitation of this natural process, by making incisions, neither increases the danger at the time nor accelerates the progress of the disease subsequently, and that it often greatly facilitates delivery.

(8.) That the cases in which the cancer forms a tumor of great size or hardness are the ones in which delivery by natural efforts will not take place.

(9.) That where the above characters are absent, no definite criteria can be drawn from the local conditions by which to foretell the behavior of the cervix uteri during labor.

(10.) That where delivery of a living child *per vias naturales* is impossible, such limited experience as we have shows that there is but little difference, as to risk to the mother, between craniotomy and Cæsarean section.

He also draws the following conclusions as to proper practice to be adopted in dealing with such cases: —

(1.) That where it is possible to remove the disease, either during pregnancy or at the time of labor, it ought to be done.

(2.) That where this cannot be done the safety of the mother is best consulted by bringing the pregnancy to an end as soon as possible.

(3.) That, when labor has actually come on, expansion of the os uteri should be aided by making numerous small incisions in its circumference.

(4.) That dilatation of the os uteri being in progress, if uterine action should be deficient, and it becomes necessary to accelerate labor, the use of the forceps is, as a rule, better than version.

(5.) That when dilatation of the cervix cannot take place, even after incisions have been made, either from rigidity or magnitude of the tumor, Cæsarean section should be performed.

Comparative Danger of First Labors. — Dr. J. G. Swayne has recently read before a branch of the British Medical Association a valuable paper,[1] in which he endeavors to answer the question whether first labors are more dangerous than others. His opinions are based upon a careful examination of ten hundred and twenty-two cases which have occurred in his own private practice. Of these two hundred and thirty-one were primiparæ, and seven hundred and ninety-one multiparæ. No mother died among the former, while five of the multiparæ were lost. The causes of deaths were as follows: In one it was heart disease, which existed previous to the labor, which became worse after delivery, and terminated fatally on the twenty-seventh day; in another it was puerperal scarlatina, proving fatal on the fifth day; in another ruptured uterus; in another pneumonia, commencing two days before labor, and ending in death six days afterwards; and in the fifth convulsions, which proved fatal a few hours after delivery. Thus the proportion of maternal deaths in the multiparæ was about one in one hundred and fifty-eight, whilst in the primiparæ there was no death in two hundred and thirty-one cases, a difference greatly to the advantage of first labors.

As regards the children, however, the difference was slightly the other way: in the two hundred and thirty-one first labors the deaths of eighteen infants are recorded, or about 7.8 per cent., whilst in the seven hundred and ninety-one multiparæ forty-seven infants died, or about 5.9 per cent.

A careful examination of the cases in detail show some interesting facts which characterize first from other labors. In primiparæ, owing to a prolonged first stage, the uterus is more exhausted, and forceps are more frequently demanded. Thus in two hundred and thirty-one primiparæ Dr. Swayne used forceps fifty-two times, or nearly one in four, whilst in the seven hundred and ninety-one multiparæ they were employed only twenty-five times, or nearly one in thirty-one. Hence come a larger number of deaths of infants from the pressure during the prolonged labor. In first labors the rigidity of the soft parts of the mother gives rise to an increased danger in cases of presentations of the inferior extremities. In the two hundred and thirty-one primiparæ there were six breech presentations, in four of which the child was still-born, whereas in the seven hundred and ninety-one multiparæ there were fourteen such cases, and only two children lost. Among the multiparæ the greatest cause of infant mortality was premature birth, from which cause there were eighteen deaths; among the primiparæ there were only three. Post-partum hæmorrhage occurred about equally in both classes, but the amount of blood lost was far greater in the multiparæ. There were eleven cases of twins among the multiparæ, and only one among the primiparæ. There is unquestionably much greater suffering among primiparæ than among multiparæ; on the other hand, the former are, as a rule, younger and in better health and stronger. Rupture of the uterus occurs much more frequently among multiparæ. Dr. Swayne closes his paper with the conclusion that first labors are less dangerous than others to the mother, but slightly more so to the infant.

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[1] Obstetrical Journal of Great Britain, May, 1879.

Value of the Expression Method in Head Presentation. — Professor Bidder (St. Petersburg) believes[1] strongly in the value of this method of effecting a delivery, and considers that the method has fallen into disrepute only because practitioners have not properly used it. In cases where there is simply a lack of expulsive force he thinks this procedure should take the place of the forceps. It should be used, however, only during the second stage. The hand should be applied on the upper part of the fœtus, and the pressure should be directed in such a way only as to be in the line of the fœtal axis. The hand should first be properly applied, and then the pressure should be steady, great care being taken that no friction whatever is used. The writer gives an account of eighty-one cases in which this method was successfully adopted. Of the mothers, thirty-four made a perfectly normal convalescence; there were slight deviations from a normal recovery in the case of thirty-eight, while seven became very sick, and two cases terminated fatally. By way of comparison he cites the record of seventy-five simple forceps cases. In all the forceps were applied when the head was low down or on the perinæum. Of these thirteen made a normal convalescence; thirty-four were slightly ill, twenty seriously, and eight died. This method of procedure can be resorted to as soon as the head has emerged from the os and the membranes are ruptured. It is not liable to cause any inflammatory condition of the uterus, and is, in his opinion, less apt to give rise to septicæmia than in cases where forceps are used, inasmuch as there is a less liability to any injury of the soft parts.

Causes of Sudden Death in Puerperal Women. — At the last meeting of the American Medical Association, Prof. Edward W. Jenks (Detroit) read a paper in which he discussed at length the various causes which give rise to sudden death in puerperal women. These causes he considered due to lesions of the circulatory, the respiratory, or the nervous system, or to puerperal septicæmia. The latter cause is especially prominent, since many lesions of the various systems mentioned owe their origin to a septic poisoning. Of the divers valvular lesions, mitral stenosis is by far the most dangerous. Endocarditis, old or new, if existing in a woman at the beginning of pregnancy, is extremely liable to be rekindled by the changed condition of the blood during pregnancy, and the result is ulcerative endocarditis. Arteritis is a very rare cause of sudden death, while phlebitis is a very common one. The introduction of air into the uterine sinuses is a most certain cause of sudden death. Any uterine relaxation will leave the mouths of the uterine vessels open; air enters, and the next uterine contraction may force it into the venous circulation. While this is almost a certain cause of death, it is, fortunately, a very rare one. Formerly puerperal eclampsia was a frequent cause of sudden death, but so much has of late years been learned as regards the nature, origin, and treatment of this disease that the death-rate has been reduced from thirty-two to fourteen per cent. during the last twenty years.

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[1] Zeitschrift für Geburtshülfe und Gynäkologie, iii. 2, 241.

Ovarian Pain in Pregnant Women. — Dr. Budin[1] calls attention to a vivid pain sometimes produced during the latter months of pregnancy and during labor by a very moderate amount of pressure made on the abdomen in the vicinity of a line drawn from the umbilicus to the anterior-superior spine of the ileum, sometimes a little above and sometimes below this line, and at a distance varying from ten to fifteen centimetres from the umbilicus. The pain is occasionally so sharp as to cause exclamations, and even to make the tears start from the eyes. At the seat of this pain, which never occurs spontaneously, a movable body may be felt, resembling in shape and size the ovary. Its presence is most usually felt on the left side, the existence of some resisting surface — usually the back of the fœtus — being necessary in order for the body to be felt and the pain to be excited. In some cases this can be done only during the contraction of the uterus. Dr. Budin thinks it possible that this "ovarian pain" has been confounded with a certain form of neuralgia, which several authors have termed rheumatism of the uterus, and with the pain sometimes caused by the pressure of the head on the uterine wall. At times it is very easy to distinguish also the round ligament, but pressure thereon causes no pain. None of the patients in whom this tenderness has been discovered were hysterical.

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[1] Progrès médicale, ix.; Medical Times and Gazette, April 26, 1879.

PROCEEDINGS OF THE SUFFOLK DISTRICT MEDICAL SOCIETY.

T. M. ROTCH, M. D., SECRETARY.

MARCH 29, 1879. Eighty-five members were present. DR. C. D. HOMANS in the chair.

A Case of Cystinuria, with Renal Calculus. — DR. WILLIAM F. WHITNEY read the case: —

The patient, an Irishwoman, aged thirty-one, without hereditary predisposition and of previous good health, suffered at three times during the past year from attacks characterized by severe pain commencing in the right lumbar region and passing towards the bladder. The attacks were accompanied by hæmaturia, and twice a calculus was discovered to have been passed. The last of these attacks, for which she sought advice at the Boston Dispensary, continued from February 1 till February 6, 1879, with only twelve hours' relief from pain, while the calculus appeared to be in the bladder. The calculus, the only one preserved, is of conical shape, with a rounded base, fawn-colored, with a rough crystalline surface. It measures seventeen mm. in length, nine mm. at the broadest part, and weighs 1.25 grms. On section a central nucleus is seen, with short lines radiating towards the periphery. A microscopic examination showed the roughness to be due to crystalline formations, on which the angles of a hexagon were here and there to be distinguished. A portion of the calculus placed on platinum foil over a lamp burned with a bluish flame and a stifling odor, resembling a little that of arsenic. A portion dissolved readily in ammonia, carbonate of soda, hot hydrochloric and nitric acids. To the solution in carbonate of soda acetic acid was added, when a precipitate was formed composed of small, transparent, hexagonal plates. On evaporating the solution in hydrochloric acid, bundles of prismatic crystals were found. To a portion dissolved in caustic soda was added a solution of acetate of lead (to which caustic soda had been added till the precipitate first formed was dissolved), and the whole boiled, and a black precipitate showed the formation of sulphide of lead and the presence of sulphur in the substance under examination. These are the characteristic reactions of cystic oxide or cystin.

Later, two quantitative analyses of the urine were made by Mr. Harrington, under Dr. E. S. Wood's direction, with the following result: —

	I.	II.
Amount of urine	2450 cc.	2340 cc.
" " urea	36.75 grms.	28.08 grms.
" " uric acid	0.441	0.305
" " sulphuric acid	——	1.649
" " cystin	0.0685	0.077
" " chlorides	13.75	14.742

The diminution of uric acid which is said to be noticed in this disease is not marked here, and would not be expected, as the amount of cystin is small, — seven centigrams. But this small amount of cystin shows the disease to be quiescent, and the absence of all marks due to friction on the calculus point to the probable absence of any other in the right kidney, and give assurance to the patient of freedom for the present from a recurrence of her attacks. The specimen is to be given to the Warren Museum.

Cases of Midwifery. — DR. JAMES AYER began a paper reviewing two thousand cases of midwifery, which is to be continued in April.

Conservatism in the Medical Profession. — DR. DAVID HUNT read a paper bearing this title.

Sarcoma of Leg. — DR. WILLIAM S. BIGELOW exhibited a leg amputated by Dr. C. B. Porter at the Massachusetts General Hospital. The patient, a woman sixty years of age, received, four years ago, a blow on the calf of the leg; at the seat of injury a small subcutaneous swelling appeared, which did not change for four years, but then began to grow rapidly. It now involves the muscles of the calf to some depth, and is the size of a small cocoa-nut. Microscopical examination shows it to be a large, round-celled sarcoma, with some spindle cells; the central part is more fibrous, and gives evidence of advancing retrograde metamorphosis. There are also several small cysts which are filled with a yellowish fluid. The leg was amputated on account of the size and rapidity of growth of the tumor.

Old Impacted Fracture and Dislocation of the Femur. — Dr. W. C. Blaisdell reported the following case: —

Mr. S., aged sixty-seven years, during his minority worked on a farm. When about twenty years old had a fall from a haymow. A physician was sent for, who ordered a powerful cathartic and a few days' rest. At the end of a fortnight he was told to resume work, that he was all right, and his employer wanted no idle ones about. In two or three days after, he was set to work swinging a scythe. Complaining of not being well, and suffering much pain, the satisfaction that he received was that he must work. I had seen him often, the last years of his life, limping about the streets. The accident already spoken of and an attack of pneumonia about two years before his death were all of which he ever complained. Finally, forty-seven years after the accident, he died of cancer. At one time about the year 1850, and from that period for some years, he suffered much pain. He required about two hours in order to walk from the foot of Hanover Street to Bowdoin Square. About this time he made an appliance to the thigh, fitting tightly, out of a piece of buffalo skin, which gave him much relief and support. This is all I could glean of the case till the time of his death, when a post mortem revealed the following condition of things: Impacted fracture and dislocation of the femur; fracture of the acetabulum; the acetabulum almost obliterated; the head of the femur resting upon a new articular surface just below and running into the lower edge of the acetabulum about a quarter of an inch and behind the obturator foramen.

Retroversion of Uterus, with Complications. — Dr. E. T. Hodges reported the following case, and exhibited the specimen, which he described as resembling the sloughed mucous membrane of the bladder. Dr. A. N. Blodgett had examined it microscopically, and reported it to be a fibrinous exudation upon the surface of the membrane rather than the membrane itself.

Grave as were the cystic symptoms, they formed but a complication of the patient's malady. Dr. Hodges first saw the patient, a woman, one month ago. She was then suffering from intense spasmodic pain along the urethra and over the symphysis. Examination by the vagina showed the hollow of the sacrum to be filled by a round, elastic tumor, apparently the uterus three or four months pregnant. No examination by the rectum was permitted. The posterior cul de sac was readily found, but the cervix was not discovered in the vicinity. The anterior cul-de-sac was beyond the reach of the index finger, above the symphysis, and here again the cervix was not found.

The bladder was full of urine, and rising out of the pelvis half way to the umbilicus.

As the patient refused to have the catheter passed, "because the water was coming away continually itself," Dr. Hodges had a flaxseed poultice applied over the bladder, and ordered a suppository of morphia and belladonna, which gave relief from the pain in half an hour. The case was considered one of uterine displacement, either anteversion or retroversion, complicating pregnancy and mechanically obstructing the proper emptying of the bladder. In the first labor forceps were used, and in each subsequent pregnancy there had been incontinence of urine during its whole course, but no more serious symptoms, and the confinements were natural. Dr. C. E. Wing was called in consultation, and upon examination succeeded in finding a cervix anteriorly, and diagnosticated a retroversion of the uterus, with pregnancy at the third or fourth month. Dr. Wing placed the patient in the knee-elbow position, and first passed a catheter. The urethra was enormously elongated, and the introduction of the instrument was most difficult. Only a small quantity of thick ammoniacal urine was withdrawn, and the use of a stream of water from a syringe to clear the eye of the instrument gave no better result, the water returning by and around the catheter, although the bladder was sufficiently full to be felt above the pubis. Failing to empty this organ, Dr. Wing proceeded to replace the uterus. This was rapidly accomplished, with slight pain to the patient, by grasping the cervix with a vulsellum and pushing upward the fundus. A Sims speculum was employed. After the replacement of the womb the catheter was again passed, with no better result than at first. The woman steadily refused to take ether or have the aspirator used.

Two days later, after a spasm of pain, she passed a fragment similar to this specimen in all respects, excepting that it was smaller. This explained the failure of the catheter to empty the bladder, for the fragment acted as a valve to obstruct the flow of urine. On the morning of the fifth day after the operation the woman was taken with what she thought to be labor pains, and Dr. Hodges was summoned. The pain was spasmodic, and closely resembled that observed in calculus of the bladder. After violent straining a gush of urine brought away the present specimen. The pain disappeared at once, and has not since returned, and she has been steadily recovering, and considers herself well, her only unpleasant symptom at present being incontinence of urine. There is no history or appearance of pelvic cellulitis, and no fistula was discovered.

SIXTY-EIGHTH ANNUAL MEETING OF THE RHODE ISLAND MEDICAL SOCIETY.

The sixty-eighth annual meeting of the Rhode Island Medical Society was held in Providence on Wednesday, June 11, 1879, the president, Dr. Edward T. Caswell, in the chair.

Dr. Chas. W. Parsons presented the annual report of the trustees of the Fiske fund, announcing that a premium of two hundred dollars had been awarded to Dr. Oliver C. Wiggin, of Providence, for an essay upon The Artificial Feeding of Infants, and a second premium of two hundred dollars to Dr. Chas. E. Banks, of Portland, Me., for an essay upon The Causes, Diagnosis, and Treatment of Cholera Infantum. The following subjects were announced for the ensuing year: (1.) The True Value of Electricity in its Application to Surgery. (2.) The Sympathetic Nerve: Its Relation to Disease.

After some further items of business were disposed of, Drs. Ray, of Philadelphia, Kirkbride, of the Pennsylvania Hospital for the Insane, and Nichols, of Bloomingdale Asylum, New York, delegates from the Association of Medical Superintendents of American Institutions for the Insane, now holding its sessions in Providence, were introduced to the society.

Dr. Ray made a brief address, expressing his long interest in the Rhode Island Medical Society, he having formerly been a member of the society while holding the position of superintendent of the Butler Hospital for the Insane. He expressed his confidence in the future prosperity of the society, and made some touching allusions to former members, long since deceased, who were prominent in the profession at the time that he was a resident of the city.

Dr. Kirkbride referred to the reliance placed by the superintendents of Insane Asylums upon the medical profession, and spoke of the honorable reputation which Rhode Island has always enjoyed in regard to the care of its insane, which he did not doubt was largely due to the influence of this society.

Dr. Nichols gave some pleasant reminiscences of his student life, which was partially spent in Rhode Island.

Dr. Ariel Ballou, of Woonsocket, from the special committee on the registration of physicians, reported that the subject had not yet received the full consideration which it deserved, and the committee was continued.

Dr. Job Kenyon, of Providence, from the committee on expert testimony before courts, reported that a petition had been presented to the legislature for an inquiry into the subject by the judiciary committee, and that a measure would be brought forward and considered at the next session. The committee was continued with farther power, in relation to the subject.

The secretary, Dr. W. E. Anthony, read obituary notices of the following members of the society, deceased during the year: Dr. Samuel Augustus Arnold, Dr. Almon Clark Whitman, and Dr. Israel Mathewson Bowen, active members, and Dr. Ashbel Woodward and Dr. Isaac Hays, honorary members.

The society then proceeded to the election of the following officers for the ensuing year: president, Dr. Edward T. Caswell, of Providence; first vice-president, Dr. Geo. P. Baker, of Providence; second vice-president, Dr. Chas. O'Leary, of Providence; recording secretary, Dr. Walter E. Anthony, of Providence; corresponding secretary, Dr. Edward M. Harris, of Providence; treasurer, Dr. Chas. H. Leonard, of Providence.

Dr. Jas. H. Eldredge, of East Greenwich, presented a specimen of *Sarracenia purpurea*, or pitcher plant, which he described as belonging to the class of insectivorous plants. He spoke of the beneficial properties ascribed to it as an external application in cases of small-pox.

Dr. S. W. Francis, of Newport, offered a resolution to the effect that the president of the society be instructed to petition the General Assembly for an act providing that no person authorized to 'practice medicine shall be compelled in any of the courts of this State to reveal information acquired in the practice of his profession. The resolution was passed.

The president, Dr. Edward T. Caswell, then delivered the annual address. He commenced by paying a feeling tribute to the memory of the venerable Dr. Arnold, and then passed on to give some practical hints for the conduct of the society, suggesting among other things that the day of the annual meeting be changed so as not to coincide with the date of meeting of the Massachusetts Medical Society. The main portion of the address was devoted to a consideration of the use of alcoholic stimulants from a medical point of view. A concise review of the physiological effects of alcohol was given, the writer maintaining that it is in no respect a food, and adds nothing to the vital forces. The value and effects of alcohol as a medicine were then discussed, showing it to be indispensable to the practitioner. Considering the moderate use of alcohol in relation to health, the question was presented as to whether it was beneficial or not, and the conclusion was reached that while there are some persons to whom total abstinence is the only safe course, the moderate use of the lighter wines, ales, and beer, under proper circumstances, is not injurious, and is often beneficial in the present condition of society.

The society then adjourned to the Narragansett Hotel to partake of the annual dinner, which was, as usual, an exceedingly pleasant affair.

FOX'S PHOTOGRAPHIC ILLUSTRATIONS OF SKIN DISEASES.[1]

The announcement of a new photographic atlas of skin diseases will, perhaps, little commend itself to those specially interested in dermatology, because they so well know the very unsatisfactory character of similar publications in the past. An examination of these plates of Dr. Fox will therefore surprise the most critical of them, we doubt not, and convince them that photography has at last accomplished in this direction what has so long been expected of it. Some of the illustrations, those of comedones, acne, and ichthyosis, for instance, are really wonderful in their minute accuracy and artistic excellence. Some of the plates, too, are of life size, and thus allow a strictly life-like reproduction of the cutaneous lesions. The negatives have been taken mostly under the direct supervision of Dr. Fox, printed by a new method not described, and finished and colored by Dr. Gaertner, a former pupil of Professor Hebra. With so accomplished a dermatologist as the editor, and an artist so skillful, so specially trained for the work, we have every surety that the high promise of these early parts will be fully carried out. It is proposed to complete the work of twelve parts within the year. With each plate is a short clinical account of the case chosen for illustration, followed by a general description of the affection and brief directions for treatment, all excellent in character. The illustrations of the first two parts represent comedo, acne, lepra tuberosa, elephantiasis, keloid, rosacea, psoriasis, and ichthyosis.

A HANDBOOK OF NURSING.[2]

This book was prepared for the use of the Training School for Nurses at New Haven, but was well worth publishing for the benefit of all nurses and the instruction of private families. It is certainly the best handbook that we have seen, and bears marks of having been built up slowly during a long experience of nursing. The first ten pages, devoted to the conduct of a nurse, could hardly be excelled. After this come directions for medical and surgical nursing, giving a clear but brief account of almost all the manœuvres that a nurse is ever called on to perform, including the use of baths, rubbing, the rules for observing the pulse, respiration, temperature, urine, etc., and also a few sketches of common diseases sufficient to introduce some directions for the special nursing required in each.

The second part of the book gives Directions for Monthly Nursing, and certainly contains excellent advice for the nurse, but at the same time much that would be of use only to the trained midwife. It is explained that these directions are given because in the absence of a physician a nurse may be obliged to conduct a labor. But the nurse should not fail to heed the warning in the next paragraph, that such rules "cannot be put in practice by any beginner." A nurse not trained as a midwife had better not try to take her first lesson in vaginal examination when left alone with a case of labor. The wisest course for her would be to follow nature, not to try to lead her.

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[1] *Photographic Illustrations of Skin Diseases.* By George Henry Fox, M. D., A. M. D., Clinical Professor of Dermatology, Starling Medical College, Columbus, O.; Surgeon to the New York Dispensary, Department of Skin and Venereal Diseases, etc., etc. New York: E. B. Treat, No. 805 Broadway.

[2] *A Handbook of Nursing for Family and General Use.* Published under the direction of the Connecticut Training School for Nurses, State Hospital, New Haven, Conn. Philadelphia: J. B. Lippincott & Co. 1879.

A similar criticism could be made on the chapters on Conditions which prohibit a Mother from nursing her Child, and The Necessary Qualifications of a Good Wet-Nurse. Without wide experience and a kind of education a nurse does not get, the best of rules might lead her to conclusions injurious to her patient. Decided exceptions might be taken to the advice on page 203 as to the use of the breast pump at a time when the difficulty to be remedied may as likely be due to excess of blood in the breast as to excess of milk, and a description of the methods of padding and compressing, as also of manipulating the breasts for the relief of distention, might well have been put in instead. We are also sorry to see condensed milk mentioned only to praise it.

In spite of these criticisms we have great pleasure in recommending the book for the use of professional nurses and all persons who have the care of sick persons, or of families in which sickness may occasionally occur, as by far the best treatise on the subject that has yet appeared.

POTT'S DISEASE.[1]

At the present time, when so much has been said on the cure of Pott's disease in a few months, it is a pleasure to welcome a monograph written by a person of Dr. Shaffer's experience, based upon cases watched through a number of years, and not upon improvement, perhaps temporary or accidental, occurring in an affection as chronic and insidious as caries of the spine.

The cases which Dr. Shaffer offers as illustration of his views appear to be carefully recorded. The results described are excellent, sufficient proof of the thoroughness of treatment.

Dr. Shaffer believes that the principle of antero-posterior support is the only true one in the treatment of caries of the spine. He uses for this support a Taylor's brace, or, in certain cases, a modification of it, applying a plaster-of-Paris "zone" instead of the apron customarily employed.

Dr. Shaffer's criticisms of the "plaster-jacket" treatment have already been mentioned in the Journal (May 8th, page 637). He hardly seems to have done justice to the convenience to the general practitioner of this form of appliance, or to admit that a plaster jacket may be applied so as to afford in certain cases efficient antero-posterior support.

The ill repute into which "apparatus" has fallen in treating caries of the spine and joint affections, Dr. Shaffer thinks, is partly due to the slight acquaintance the general practitioner has with the detail of apparatus, and to the fact that he is obliged to rely on "instrument makers, who, being under no obligation to follow the ideas of the surgeon who first devised a given splint for any purpose, are very prone to introduce so-called 'improvements,' which in many instances render the apparatus practically inoperative."

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[1] *Pott's Disease: Its Pathology and Mechanical Treatment, with Remarks on Rotary Lateral Curvature.* By Newton M. Shaffer, M. D. New York: G. P. Putnam's Sons.

The chapter on Pathology is carefully written; it consists mainly of quotations from a few standard works (Billroth's Surgical Pathology, Barwell, Brodie), and the views of the author founded upon clinical observation rather than any pathological investigation. This of course, in a measure, detracts from the value of the article, as the following extract illustrates (*vide* page 27): —

"Those cases in which I have been able to diagnose an acute fibro-chondritis with suppuration, the patients have recovered without any deformity other than a slight irregularity with rigidity," etc.

Dr. Shaffer was undoubtedly able to satisfy himself as to the correctness of a diagnosis of "acute fibro-chondritis," but the reader will be permitted to question the value of the observation.

In the small matter of literary style, a very frequent use of the personal pronoun is noticeable. On page 8, containing twenty-eight lines, the pronoun I occurs nine times, or once in every three lines; on page 18 eight times; on page 23 seven times.

THE TENTH CENSUS.

In the preface to the Ninth Census of the United States it is stated that if the value of our statistics of mortality "depended upon the return of substantially the whole body of deaths occurring during the year covered by the enumeration, the results would not be worth the space occupied by publication, much less the expense of collection and compilation." Their importance arises "from the consideration that the tables distribute a body of deaths approaching half a million, among the several periods of life, between the two sexes, according to cause of death and month of death, by race, by nationality, and by occupation." There are very few of our States, however, where even an approximate estimation can be made of the influence of *locality and various conditions of life* upon the death-rates; and even in Massachusetts the thirty-seventh registration report will be the first where the causes of death are pretty accurately stated, as compared with the statistics of other countries. General Walker, therefore, with the hearty coöperation of the American Medical Association and the National Board of Health, has issued a series of blanks, conveniently arranged in book form, in which physicians are requested to report fully all the deaths occurring in their practice during the year ending May 31, 1880. It is to be hoped that they will cordially respond to this request, and that the census of 1880 may thereby possess a value correspondingly greater than ever before. The distinguished ability of General Walker and his valuable experience are an assurance that his part of the work will be most admirably done.

THE WISCONSIN BOARD OF HEALTH REPORT.

The third annual report of the State Board of Health of Wisconsin contains a number of articles of great general as well as local interest, and gives good evidence of the enthusiastic devotion of its members to their work. The various contributions are prepared for a popular audience, and are admirably adapted to the purpose of instructing the people at large. As we read that the number of state boards of health is now more than double what it was at the beginning of 1876, and that it seems possible that the close of the present decade will find few, if any, States of the Union in which the subject of state medicine will not be carefully studied, under the authority of the various legislative bodies, we cannot resist the hope that long before that time Massachusetts will have resumed her proper place on the list.

From the report of the secretary it appears that the registration of vital statistics is very incomplete; indeed, from a failure to find full records of mortality, the board were unable to come to as definite a conclusion as they had wished with regard to a most important inquiry, namely, upon the alleged prevalence of malarial diseases, said to be due to overflowage of lands, caused by the erection of a mill-dam. An improved registration law, suggested by the board, failed to receive the legislature's approval. The organization of local boards of health and their readiness to report to the state board are improving from year to year. In forty-five of six hundred and eighty-seven towns small-pox occurred; diphtheria was the most prevalent of the infectious filth diseases; whooping-cough, scarlet fever, typhoid fever, and measles coming next in order.

The special papers in the report are on Diphtheria, by Dr. Griffin, president of the board, in which he maintains the *de novo* origin of the disease "under various recognized unsanitary conditions;" on Typhoid Fever, by Dr. Marks; on Land Drainage and Obstructions to Water-Courses, by the secretary, Dr. Reeve; on Some of the Preventable Causes of Insanity, by Dr. Kempster; on the Influence on Health of Reading (vicious literature), by Professor Anderson; on Water and the Water Supply of Wisconsin, by Dr. Witter; On Investigation of the Water Supply of a City, by Professor Chittenden; on Inspection of Buildings, by General Bintliff; on School Buildings, by Professor Chittenden. The last twenty pages are devoted to some interesting extracts from the notes of correspondents with regard to the prevalence and causes of disease in their respective localities. The report, as a whole, is a valuable contribution to sanitary literature.

RED CAPS AND SUMMER HEAT.

The horse-car drivers and policemen have already been provided with light, comfortable hats, adapted to the heat and glaring light of our midsummer weather, while the soldiers' messenger corps are still obliged to wear, while on duty, the red woolen cap. This cap does not allow an air space between it and the head; does not protect the eyes from the intense bright light of the sun; and, worst of all, absorbs so much heat that a thermometer placed in it, over the head, registers several degrees more of heat than when a straw hat is worn. When it is considered that the danger of a permanent injury to the brain from wearing such caps in hot weather has been fully demonstrated in the American, English, French, and German armies, and when the fact is borne in mind that most of the messengers are men who have been more or less debilitated or injured by the exposures incident to the war, and that many of them, at one time or another, probably have been prostrated by intense heat, nothing certainly need be done to correct the evil further than to call attention to its existence. A light straw hat can be made, distinctive of the corps, without exposing the men to discomfort, and the risks of serious permanent disability.

MEDICAL NOTES.

— The British Medical Association will meet this year at Cork, on Tuesday, August 5th. Dr. Denis O'Connor is the president-elect.

— According to the *Berliner klinische Wochenschrift*, an enormous calculus was lately exhibited by Dr. Langenbeck, of Berlin. He removed it after death from the bladder of a man who had suffered for many years from urethral stricture. Its weight was six hundred grammes (eighteen ounces). It almost filled the bladder. No foreign body was found as a nucleus. It was composed wholly of phosphatic layers.

— Piorry, of Paris, so well known in connection with percussion by means of the plessimeter, his invention, and also from his numerous writings, recently died at the age of eighty-five.

— Professor Virchow has returned to Berlin from Asia Minor, where he had examined the excavations of Dr. Schliemann. Great honor was done to him at Athens, where the medical faculty presented to him the diploma of doctor, *honoris causâ*, and the medical society elected him honorary member.

— Langenbeck has performed tracheotomy seven hundred times in cases of diphtheria. Some years he has saved as high as forty per cent., and in others only ten per cent. He lays down the rule that one should operate before signs of extreme dyspnœa and blood-poisoning set in.

PROVIDENCE.

— The trustees of the Fiske Fund, Providence, R. I., proposed the following subjects for competitive essays for 1880: (1.) The True Value of Electricity in its Applications to Surgery. (2.) The Sympathetic Nerve: Its Relations to Disease. For the best essay on either of these subjects, worthy of a premium, they offer the sum of two hundred dollars. The essays are to be handed in on or before the 9th day of May, 1880. The regulations are those which are usual in such cases. Edward T. Caswell, M. D., George P. Baker, M. D., and Charles P. O'Leary, M. D., of Providence, are the trustees. The awards for the essays of 1879 are mentioned in our report of the annual meeting of the Rhode Island Medical Society, published in this number.

NEW YORK.

— At the last meeting of the County Medical Society before the adjournment until September, a paper was read by Dr. Ap Morgan Vance on The Treatment of Spinal Caries and Lateral Curvature by a New Paper Brace, a Substitute for the Plaster Jacket, and demonstrations of its construction and application were given by him. The use of paper in the treatment of spinal disease first suggested itself to him, he said, while a student in the University of Louisville, in the summer of 1877, previous to which he had seen in the practice of Dr. Cowling the employment of paper in the construction of fracture splints, with very satisfactory results.

The chief objections which he had found to the use of plaster were its weight, imperviousness, liability to break down easily, and the difficulty of removal, and these, he claimed, were all obviated by the paper brace, which secured the same support, while it was far more durable.

Owing to the time required for hardening and the yielding of the soft parts, the paper dressing could not be applied directly to the body, and the following device was finally hit upon: A plaster jacket is put on and allowed to harden, when it is removed and filled with plaster mixed with water. When the latter has set the external jacket is taken away, and a perfect cast of the body is thus obtained. Dr. Vance stated that successive layers of brown manilla paper, previously coated with a mixture of white glue and oxide of zinc, were applied to form the brace, the strips being one and a half inches in width, and long enough to reach a little more than half-way around the cast. More recently he had employed narrow vertical steel springs in connection with these, which added greatly to the strength of the brace, while, as several additional layers could be dispensed with, it greatly diminished its weight and bulk. A number of hours were required for it to dry, and when this had been accomplished it was cut down and removed, after which numerous perforations were made for the sake of ventilation, and leather strips with vental eyelets were then to be sewed half an inch from the edge in front, and laced with double lacing like a corset. Before being worn the brace should be neatly lined with some appropriate material, which could be removed whenever this was desirable on account of cleanliness. When used for the relief of lateral curvature the brace was supplemented by a band of sheet rubber, six inches square, sewed to the anterior and posterior walls in such a way as to keep up continual pressure upon the convexity of the thorax, and thus assist in straightening the spine. The paper brace weighed from eight to sixteen ounces, could be worn for six months or longer, could be removed and reapplied at will, and could be made and well finished for a little over a dollar.

— On the occasion of the final discharge of the committee of the County Society, appointed a year and a half ago in reference to the Catalogue of the National Medical Library, its chairman, Dr. A. Jacobi, congratulated the profession on the fact that Congress had made an appropriation for the printing of two volumes. In the course of his remarks he spoke of the encouragement which this much-desired result offered for prompt and united action on the part of medical men in the future whenever any interest of the profession was at stake, and also paid tributes to Dr. John S. Billings, the librarian of the National Medical Library, whose indefatigable industry, he said, was surpassed only by his modesty, and to the Hon. Anthony Eichoff, the representative of the seventh congressional district of the city of New York, who thoroughly appreciated the desirability of the great work, and in his capacity as a member of the committee on public printing used his most active endeavors to have it carried through.

— Three cases of small-pox in the upper part of the city have been traced to a factory near the Grand Central Hotel, corner of Fourth Avenue and Forty-Second Street, the patients all being workmen employed in this establishment.

Consequently the rest of the employees have been vaccinated, while the entire building has been thoroughly disinfected, and will be kept closed for two weeks.

— During last week the sanitary inspectors of the board of health investigated more than two hundred and fifty complaints from citizens, and since the 1st of January over three thousand four hundred complaints have been received by the authorities. The extra assistant inspectors, whose duty it is especially to look after the sick children in the tenement-house districts during the hot weather, have not yet been appointed, but the board of appointment have already made an appropriation of five thousand dollars for the payment of their salaries, and the corps will no doubt be organized and get to work early in July.

— Raphael Jean de Merauly, a native of France, who is said to be quite unacquainted with English, having presented to the Bureau of Vital Statistics a medical diploma from the American University of Philadelphia, and asked to be registered as a practicing physician, the application was denied on the ground that it was not possible to pursue a course of studies in an institution where one could not understand the language spoken.

— Dr. Carlos MacDonald has been appointed superintendent of the Asylum for Chronic Insane, which is to be established in the buildings at Binghamton lately occupied as the State Inebriate Asylum.

— Dr. Hull, the murder of whose wife has created such an excitement in the community, was formerly a regular physician, but for the last few years has been a homœopathist.

BALTIMORE.

— Among the recent contributions of note to medical literature is one by Prof. Harvey L. Byrd, a gentleman who has had extensive experience in the disease of which he treats, namely, yellow fever. His essay, entitled Observations on Yellow Fever, appeared in the March number of the *Virginia Medical Monthly*, has attracted much attention, and been favorably criticised. He assures us that the subject has been of the deepest interest to himself for a quarter of a century, and that it received his close attention and study during a decade of that time. The fallacy of supposing yellow fever to be an aggravated or malignant type of bilious or remittent fever, with an increase of some of its graver symptoms, is, he thinks, clearly demonstrated. The disease is treated as contagious, with immunity from second attacks. In the several epidemics through which Dr. Byrd has passed, he traces the cause to the importation of the yellow fever germ by foreign vessels coming from infected ports, the disease breaking out first in the sea-port towns, and thence being transmitted to the interior by means of human beings carrying the contagion in their clothing, or by bedding, blankets, etc. As regards season, locality, cause, contagion, and prevention, the subject is taken up and arranged systematically. The cause he considers to be a specific organic germ. By this native Africans are not affected, as a general rule, although the disease does prevail endemically on the west coast of Africa. The only sure prevention he believes to be quarantine rigorously carried out, and instances are cited in which quarantines were effectually protected from outbreaks of yellow fever.

— The fifth annual report of the Baltimore Charity Eye and Ear Dispensary on Central Avenue has been published. Although that institution has been maintained during the past year at the small cost of $300, there is now a prospect of still further reduction on account of lower rent, etc., which will bring the expenses within the modest sum of $274.50 per annum. The total attendance during the year was 2232; the daily average attendance thirteen or fourteen patients, the dispensary being open three days in the week. Dr. Samuel Theobald is the attending surgeon.

— The State Board of Health met in consultation, a few days since, at the health commissioner's office (Dr. Stewart's), for the purpose of inquiring into the best means of abating nuisances in "the belt," a tract of land between the city and the country. The butchering establishments are deemed a source of great nuisance to persons residing near; the filthy water and other matter from the slaughter-houses flowing into the city, settling in the sewers and low places, and polluting streams of water, and thus becoming prejudicial to the health of the neighborhoods. The law confers upon the health department of Baltimore the power to prohibit nuisances and enforce the health laws within three miles of the city limits, and it is proposed to direct the sanitary inspectors of the department and the county police force to examine into all such cases, and report them to the health department. The persons who are found violating the health laws will be brought before the grand jury for indictment. Immediate action will be taken by the state and city authorities to abate the nuisances. All slaughter-houses will be carefully examined, and care taken to report such establishments as allow water and other matter to flow into the streets.

— Professor Toury and Professor Remsen, of the Johns Hopkins University, have analyzed the water from a number of pumps, and in several instances found it no better than specimens previously examined. The water of two pumps, however, was found as pure as the water furnished by the city.

— Public exercises commemorating the thirtieth anniversary of the organization of the House of Refuge were held at that institution on the 19th inst. In his capacity as president, Dr. Graves made an address to the inmates, several hundred in number, who are under his immediate supervision. The sanitary condition, so far as we are aware, is equal to that of any other institution of the kind.

— It is mooted that an ordinance may be passed by the city council to appoint some surgeon fully competent to make post-mortem examinations for the city. This will be a new medical office.

— A new wing will shortly be added to the Maryland University Hospital, extending from Lombard to Carpenter Street. It will be of brick, three stories in height, and will accommodate seventy-eight patients. The building at present has accommodations for one hundred and sixty-five inmates.

— The Seaside Laboratory of the Johns Hopkins University is at Fort Wool, its location of last year, under the direction of Dr. William K. Brooks, an associate of the university. The laboratory was to have been opened about the middle of June.

LETTER FROM PROVIDENCE.

THAT useful and honorable body, the Association of Medical Superintendents of American Institutions for the Insane, held its thirty-third annual meeting here last week. The parlors of the new and elegant Narragansett House were enlivened by the presence of members and their wives from all parts of the United States and British Provinces. The South was well represented, and delegates came from New Brunswick and California, from the Northwestern and Gulf States. The Young Men's Christian Association Hall, where its sessions were held, was open not only to members, but to the profession in Providence, and to physicians of lunacy from other cities. Though membership is restricted according to its title, there is nothing exclusive or private in its meetings, as we noticed clergymen, asylum trustees, female physicians, and even an enterprising mangle agent in attendance. His *mangle*, we learned with pleasure, was merely for use in the laundry.

The officers elected are Dr. C. A. Walker, of Boston, president; Dr. J. H. Callender, of Nashville, Tenn., vice-president; Dr. John Curwen, of Harrisburg, Penn., secretary and treasurer. The next place of meeting is Philadelphia. Among the more important papers read and discussed was one by Dr. Ray, On the Curability of Insanity now and Forty Years ago, being an interesting reply to Dr. Earle's recent paper on the same subject; one by Dr. Draper, of Brattleboro, On the Responsibility of the Insane while Confined in Hospitals; and an account by Dr. Kirkbride, of Philadelphia, of three unusual cases occurring in his asylum. Dr. Walter A. Kempster, of Oshkosh, Mich., described a case of remarkably extensive and varied disease of the brain and spinal cord, showing colored drawings and microscopic sections in illustration of it. This case will be of much interest to pathologists when published in full. Dr. Kempster also showed sections of the cord in a series of cases, some of which tend to throw doubt on accepted theories of its physiology. For instance, in one patient sensation and motion remained unimpaired after complete destruction of the gray matter. An extensive clot in the floor of the fourth ventricle, destroying the roots of nearly all the cranial nerves, was unaccompanied by any corresponding symptoms during life. In a case of extensive clot cutting off the bases of the three occipital, he found sudden inability to swallow solid food. This case confirms Ferrier's observations of destructive lesion to this locality in apes.

We did not intend to report, except very briefly, the doings of the association, which, in spite of all temptations, did a creditable amount of work, the small size of the State proving well adapted to concentration of thought. We ought not to omit to notice the report on the death of Dr. William M. Compton, of Mississippi. He was a surgeon in the Confederate army, member of the Constitutional Convention of 1870, former superintendent of the Jackson Asylum, and chairman of the section on psychology of the American Medical Association. He was engaged at the time of his death in building a private hospital for the insane. He fell a victim to yellow fever, contracted while at his post of duty in the late epidemic.

On the afternoon of Wednesday the association accepted the hospitality of the trustees of the Butler Hospital. After inspecting this admirably arranged and furnished hospital, where Dr. Sawyer so well sustains the high standard of management introduced by Dr. Ray, dinner was served for two hundred guests in a tent on the grounds. The location of the Butler Hospital is unsurpassed for beauty, the situation being a high and undulating plateau, overlooking a wide river or bay, covered with a fine growth of large trees and an undergrowth of mountain laurel. The farm, lawn, and park contain about one hundred and fifty acres. After-dinner speeches were made by ex-Mayor Barstow, president of the corporation, Governor Van Zandt, Chief Justice Durfee, Drs. Ray, Clark, and many others. Judge Durfee thinks well of medical men as witnesses. He said that without experts in insanity "a court of law can do little but guess and grope and blunder in the dark." He paid a graceful tribute to Dr. Ray and other physicians, who have made valuable contributions to the department of medical jurisprudence, in consequence of whose labors "our laws are to-day, both in practice and theory, wiser, juster, plainer, and more humane, with the spirit of enlightenment and Christian civilization, than they otherwise could possibly have been."

On Thursday visits were made to the State Farm for Chronic Insane and the Rhode Island General Hospital. On Friday an excursion was made to Rocky Point, where a clam-bake was in readiness, and thence to Newport, visiting various points of interest in the city. Here Dr. and Mrs. Butler, with two gentlemen friends, were thrown from a carriage, and narrowly escaped a serious accident, which would have been a sad close to a pleasant and profitable week.

This week has been eventful in two respects. The trial of Geo. A. Brown for the murder of his wife's seducer has resulted in a disagreement of the jury. The defense was insanity, and the experts in attendance were Drs. Sawyer, Fisher, Palmer, and Whitney. As the case is to be tried again, we will make no comment except to remark that it involves a very important medico-legal question. The other event was the class day at Brown University, and what will interest more his numerous friends in and out of the profession, the conferring of the degree of LL. D on Dr. Isaac Ray, of Philadelphia. This compliment was never more deserved, and will be followed by the hearty congratulations of all who know his ability and worth. T. W. F.

SHORT COMMUNICATIONS.

ABDOMINAL WOUND WITH PROTRUSION OF THE OMENTUM.

BY JOHN BLACKMER, M. D.

The following case seems sufficiently remarkable to place on record, and I accordingly forward you a brief sketch. March 6, 1879, I was called to E. M., a colored boy, nineteen years of age, who had just received a stab in the left hypochondriac region. The intestine was undoubtedly penetrated, as there was profuse internal hæmorrhage, manifested by hæmatemesis and the discharge of blood per rectum, which proceeded to complete syncope. External hæmorrhage was not grave, but a mass of omentum about four inches in length and one and a half in width protruded from the wound. For four or five days the pulse was not far from one hundred, thirst excessive, complete anorexia, and great restlessness. He was kept under the influence of opiates, and sustained by milk, beef tea, and juice of orange. A few days later febrile symptoms began to yield, pulse gradually sliding down to eighty, and thirst disappearing. The protruding omentum beginning to suppurate upon the upper surface and changing color beneath, on the ninth day after the injury we applied ligatures, and removed the mass. Very little febrile action ensued, and no positive peritoneal inflammation. Pain, restlessness, and nausea yielded as before to narcotics. The above diet continued with cold-water dressings. On the thirteenth day an enema was administered, the bowels having rested for twelve days. A good evacuation was produced.

The ligature did not give way until the eighteenth day after its application; the case has steadily progressed to recovery.

WHAT WE HAVE TO MEET.

"*Home keeping youths have ever homely wits.*" — SHAKESPEARE.

"WE, the undersigned, assistant physicians of ———, do beg that you reconsider your order concerning the metric system, and postpone it at least during our term.

"We respectfully request this for the following reasons: —

"(1.) We have never been taught the metric system in our medical colleges.

"(2.) We were considered competent by the board of health to practice, and were not interrogated in respect to this system. We know nothing more now than then concerning it.

"(3.) That neither our professors nor the first physicians of the city use it.

"(4.) All of our text-books are in the old system, and none in the new.

"(5.) We have no recognized authority for doses in the new system.

"(6.) In changing the doses from the old system to the new there is always a chance for mistakes and inaccuracies.

"(7.) That few if any druggists in the city are prepared to fill such prescriptions, and when we leave we shall be compelled to use the old system.

"(8.) That the remaining time that we have is so limited, and, having so much to learn, we would rather spend it so as to give us the greatest advantage.

"Hoping that this will meet with your approval, we remain,

"Yours respectfully." (Eight signatures.)

Tantæne animis cœlestibus iræ! Mountains and molehills! "Who would have thought the old man had so much blood"! It is three and a half months since the above petition was sent in, and the senders have already seen the error of their ways, and now each and all use the metric system exclusively. Such a document points a moral, Look before you leap, and furnishes a text, *Non omne ignotum pro malefico.* Let us answer in detail the "reasons" given.

(1.) Nor have they been taught where and how to purchase the horse and buggy which are to furnish them "rapid transit," physically speaking, as does the metric system, speaking intellectually. Both are to be obtained for their own sake. Fortunately, the latter is easily acquired.

(2.) Is one never to know more upon any point than what was forced into him at school? As far as physicians are concerned, the system may be learned in five minutes forever.

(3.) More shame to them, then! But it is not to them, it is precisely the younger men to whom we look for progress. In some parts of the world the ground is even to-day still harrowed and plowed with branches.

(4.) *All* text-books, except those in the English language, are in the metric system. Also all other books and articles, and many of these last even when written in English.

(5.) No "authority" is needed to prove that twice two is four. The whole system may be reduced to this: Knowing your grains, drachms, and ounces, multiply grains by .06, drachms by 4, ounces by 30. *Voila tout!* "Only this and nothing more!" On these three hang all the metric lore and profits!

(6.) Is there, then, a magical potency in exactly the old proportions? Oh, superstition dies hard! The only "chance" is for *improvement;* for, as .06 (*drug*) is *less* than a *grain*, while 4. and 32. (*vehicle*) are *more* than the *drachm* and *ounce*, there is *no* danger of giving too large doses of strong drugs, and polypharmacy, the opprobrium of our profession, is curtailed, while idiosyncrasies can be better allowed for.

(7.) *All* druggists *must* be "prepared to fill such prescriptions," for the metric system is *legalized* in the United States already, and the law compels them. All that is needed is for them to *buy the weights*, and that for a mere trifle. *Educated* pharmacists in their own work use *only* the metric system. In the Eastern States the druggists were far in advance of physicians in its use. Distrust *as ignorant* every "druggist" *not* "prepared to fill such prescriptions." Nor will you ever be "compelled," *or even willing*, to go back "to use the old system" *Nulla vestigia retrorsum!*

(8.) Then learn *and use* the metric system, *thus saving time for study*. Q. E. D.

MORAL.

We need a benevolent despot who would *compel* the use of the metric system here after a fixed day. After a week no one would have any more trouble; after a month people would wonder how they could ever have used anything else, the labor of learning is so slight, the gain immense.

All the poor peasants of Europe, the lowest classes of "effete despotisms," etc., etc., have been able to adopt it, *at once*, and yet Americans, self-ruling, are really too lazy, while merely claiming to be too stupid, so to do. Shame on a country which "to party gives up what was meant for mankind"! E. W.

REPORTED MORTALITY FOR THE WEEK ENDING JUNE 21, 1879.

Cities.	Population estimated for July, 1879.	Reported Deaths in each.	Annual Death-Rate per 1000 during the Week.	Percentage of total Deaths from				
				The Principal "Zymotic" Diseases.	Diarrhœal Diseases.	Pneumonia.	Diphtheria and Croup.	Scarlet Fever.
New York	1,085,000	473	22.73	30.44	15.64	6.55	3.59	5.92
Philadelphia [1]	—	—	—	—	—	—	—	—
Brooklyn	564,400	151	13.95	23.18	7.95	6.62	7.95	4.64
Chicago	—	143	—	20.28	11.19	4.20	3.49	1.40
St. Louis	—	166	—	31.33	22.89	1.81	—	1.20
Baltimore	365,000	180	25.72	41.67	27.22	1.67	3.33	7.22
Boston	360,000	97	14.05	15.46	2.06	6.19	9.28	—
New Orleans [1]	—	—	—	—	—	—	—	—
Cincinnati	280,000	104	19.36	30.77	13.46	1.92	2.88	8.65
District of Columbia	160,000	118	38.46	37.29	35.59	.85	—	.85
Cleveland	—	48	—	27.08	6.25	4.17	4.17	6.25
Pittsburgh	—	41	—	34.14	4.88	2.44	12.19	2.44
Buffalo [1]	—	—	—	—	—	—	—	—
Milwaukee	—	22	—	13.64	4.55	18.18	4.55	—
Providence	101,000	—	—	—	—	—	—	—
New Haven	60,000	22	19.12	—	—	—	—	—
Charleston	57,000	30	27.44	3.33	3.33	3.33	—	—
Nashville	27,000	15	28.97	60.00	60.00	—	—	—
Lowell	53,300	24	23.47	4.17	—	4.17	4.17	—
Worcester	52,500	12	11.92	8.33	—	—	—	—
Cambridge	51,400	10	10.14	10.00	—	10.00	10.00	—
Fall River	48,500	21	22.58	19.05	—	—	—	19.05
Lawrence	38,200	14	19.11	21.43	7.14	14.28	7.14	7.14
Lynn	34,000	11	16.87	36.36	—	—	18.18	9.09
Springfield	31,500	9	14.90	22.22	—	—	11.11	—
New Bedford	27,000	8	15.45	12.50	—	—	12.50	—
Salem	26,400	6	11.85	16.67	—	16.67	16.67	—
Somerville	23,350	4	8.93	25.00	25.00	—	—	—
Chelsea	20,800	6	15.04	50.00	—	16.67	33.33	—
Taunton	20,200	3	7.74	—	—	—	—	—
Holyoke	18,200	14	40.11	28.57	14.28	7.14	—	—
Gloucester	17,100	9	27.44	11.11	—	11.11	—	11.11
Newton	17,100	6	18.29	—	—	—	—	—
Haverhill	15,300	3	10.22	—	—	—	—	—
Newburyport	13,500	4	15.45	—	—	25.00	—	—
Fitchburg	12,500	2	8.34	—	—	—	—	—

[1] Not reported.

Seventeen hundred and seventy-six deaths were reported: 496 from the principal "zymotic" diseases, 267 from diarrhœal diseases, 222 from consumption, 80 from pneumonia, 73 from diphtheria and croup, 73 from scarlet fever, 30 from bronchitis, 21 from whooping-cough, 18 from measles, 15 from typhoid fever, 14 from malarial fevers, seven from cerebro-spinal meningitis, five from erysipelas, three from small-pox, three from trismus nascentium, and one from "spotted fever." The death-rate of whites in the District of Columbia was 32.38, of colored 50.08. From *bronchitis*, 10 deaths were reported in New York, five in Brooklyn and Chicago, three in Boston, two in Baltimore and Lowell, one in Cincinnati, Cleveland, and Charleston. From *whooping-cough*, eight in New York, three in Brooklyn and Cincinnati, two in Pittsburgh, and one in Chicago, St. Louis, Baltimore, Boston, and Cleveland. From *measles*, six in New York, four in Pittsburgh, three in Baltimore and Cleveland, and two in St. Louis. From *typhoid fever*, three in Boston, two in Chicago, Baltimore, Cincinnati, and Holyoke, one in New York, St. Louis, Milwaukee, and Worcester. From *malarial fevers*, five in New York, four in St. Louis, two in Chicago, and one in District of Columbia, Cleveland, and Baltimore. From *cerebro-spinal meningitis*, two in St. Louis, one in New York, Chicago, Cincinnati, Lynn, and Chelsea. From *erysipelas*, two in New York and St. Louis, one in Brooklyn. From *small-pox*, two in New York and one in Baltimore. From *trismus nascentium*, two in Charleston and one in District of Columbia. From *spotted fever*, one in Springfield.

Allowing for Philadelphia, New Orleans, and Buffalo, not reported, the total mortality and the deaths from erysipelas, diphtheria and croup, whooping-cough, and cerebro-spinal meningitis remain without noteworthy change; in pulmonary diseases the decrease of the past four weeks continues; typhoid fever is less fatal again, after the rise of the previous week; scarlet fever and measles show a moderate increase; diarrhœal diseases have progressively increased in fatality for the past five weeks, although not so rapidly as last year. In the nineteen cities of Massachusetts, with an estimated population of 880,850, the mortality from typhoid fever, diarrhœal diseases, and pneumonia was greater than for the previous week; from cerebro-spinal meningitis, whooping-cough, and consumption much less.

The weather was cooler than usual for the season, the meteorological record for the week in Boston being as follows: —

Date.	Barometer.	Thermometer.			Relative Humidity.				Direction of Wind.			Velocity of Wind.			State of Weather.[1]			Rainfall.	
	Mean.	Mean.	Maximum	Minimum.	7 A. M.	2 P. M.	9 P. M.	Mean.	7 A. M.	2 P. M.	9 P. M.	7 A. M.	2 P. M.	9 P. M.	7 A. M.	2 P. M.	9 P. M.	Duration.	Amount in Inches.
June 15	29.594	55	66	48	88	88	93	90	W	N	N	4	11	6	R	R	O	—	.93
" 16	29.647	51	63	48	100	86	93	93	NE	N	N	6	15	7	R	O	F	—	.09
" 17	29.879	58	68	49	80	35	78	64	W	W	W	6	16	11	C	F	F	—	.01
" 18	30.113	55	62	49	73	58	66	66	NW	E	SE	15	8	1	F	F	C	—	—
" 19	30.255	58	61	49	75	44	56	58	E	SE	O	8	11	0	F	C	C	—	—
" 20	30.211	62	73	48	75	48	55	59	W	SE	W	6	10	8	C	F	C	—	—
" 21	30.177	65	81	54	77	39	61	59	SW	SW	SW	10	12	12	C	F	F	—	—
Week.	29.982	58	81	48				70	W			1505 miles.						—	1.03

[1] O., cloudy; C., clear; F., fair; G., fog; H., hazy; S., smoky; R., rain; T., threatening.

For the week ending May 31st, in 149 German cities, with an estimated population of 7,419,414, the death-rate was 28.3, a decrease of 0.8 over the previous week. The diarrhœal diseases alone show a considerable increase. Four thousand and forty-four deaths were reported: 619 from consumption, 522 from acute diseases of the respiratory organs, 282 from diarrhœal diseases, 122 from diphtheria and croup, 52 from typhoid fever, 48 from scarlet fever, 43 from whooping-cough, 36 from measles, 32 from puerperal fever, four from typhus fever, two from small-pox. The death-rates ranged from 18.5 in Posen to 45.0 in Munich; Königsberg 38.6; Dantzic 29.1; Breslau 37.9; Dresden 27.1; Cassel 27.5; Berlin 27.1; Leipsic 22.8; Hamburg 29.5; Hanover 21.4; Bremen 25.0; Cologne 23.0; Frankfort-on-the-Main 21.4; Darmstadt 24.1. Also for the same week, Vienna 32.9; Prague 41.8; Trieste 30.4; Geneva 28.4; Basle 16.5; Paris 27.

For the week ending June 7th, in the 20 English cities and towns having an estimated population of 7,383,999, the death-rate was 19.7, a decrease of 0.8 from the previous week, indicating a decrease in all the reported causes of death except diarrhœa, fevers, and small-pox, in all of which there was a considerable increase. Two thousand seven hundred and eighty-five deaths were reported: 283 from diseases of the respiratory organs, 106 from measles, 91 from whooping-cough, 89 from scarlet fever, 42 from diarrhœa, 35 from fever, eleven from small-pox (in London). The death-rates ranged from 11.9 in Portsmouth to 23.4 in Oldham. London 19.5; Plymouth 14.7; Bristol 19.9; Birmingham 21.3; Liverpool 21.0; Manchester 22.1; Leeds 21.1. In Edinburgh the death-rate was 18; in Glasgow 21; in Dublin 40 (small-pox, 18 deaths).

Small-pox and fevers prevail in Calcutta, Bombay, and Madras; small-pox and measles in Paris and Buda-Pesth; small-pox and diphtheria in Vienna; small-pox (increasing) and fevers in St. Petersburg. Any apprehensions of further danger from the plague have been given up, and the countries of Southern Europe have annulled the regulations with regard to it.

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LECTURES.

CLINICAL LECTURE DELIVERED AT BELLEVUE HOSPITAL, NEW YORK.[1]

BY PROF. AUSTIN FLINT, SR.

Probable Aneurism of the Abdominal Aorta. — GENTLEMEN: The patient before you, whose name is Charles H., is forty-nine years of age. The family history is good, and he has never had syphilis, but has suffered from malarial trouble. He has been accustomed to hard work, and says that he has repeatedly strained himself in his labor. About ten months ago, while working as fireman in an engine-room, he became greatly overheated, and then went out into the cool air; as a result of this he got a lame back. Since then he has never been well, and six months ago his sufferings became so great that he was obliged to give up work. The principal difficulty was pain in the back, and he found that the more quiet he kept the less severe this was. He suffered most when stooping over. At length, as he did not seem to be getting any better, he concluded to come to the hospital, and was admitted here just two months since. Since his admission the pain has become considerably better, and he is now able to lie down, which before he could not do without the greatest discomfort. The pulse is 84 and the temperature normal, while the examination of the urine also gives a negative result. He has had some cough, which, however, is not significant, and complains of sharp pain at times in the groin in addition to that in the back. No cardiac murmur can be detected, but on making an examination of the abdomen we find that, while there is no tumor present, there is a pretty strong pulsation in the umbilical region, about seven and a half inches below the ensiform cartilage, and that this is accompanied by a systolic murmur. When I place the stethoscope over this point, most of you, I think, can distinguish the pulsation by the movement of the instrument, but such a phenomenon in this locality, I would have you understand, is by no means uncommon, and by itself is not at all significant.

It has been a question ever since this patient's admission whether he were suffering from aneurism of the abdominal aorta, or not, and it would be a matter of satisfaction if we were now able to arrive at some definite conclusion in regard to the case. One of the principal points in favor of the diagnosis of aneurism is the locality and nature of the pain from which the patient has so long been suffering, and yet even this is not strictly characteristic of that condition. In a patient over forty-eight years of age the steady persistence of a localized pain in the back for a considerable period of time should always suggest the possibility, at least, of the presence of aortic aneurism, and especially if this pain is of a gnawing character. Here I learn that the pain was at first always in the same spot, which was quite circumscribed in area, but that more recently it has radiated more widely, and has also seemed to shift its position somewhat. In addition, we find that it is now considerably less severe than it was formerly, and on the whole, therefore, we are driven to acknowledge that we cannot make much out of this pain that is diagnostic.

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[1] Reported for the JOURNAL.

Of the other physical signs belonging to aneurism (but, as previously mentioned, by no means confined to that condition alone) we have a distinct epigastric pulsation, which is not only evident to the touch, but also visible. It is stated in the notes which have been taken of the case that, in addition, there is a thrill at the point of pulsation, but I must confess that, personally, I have not as yet been able to make this out. If there were a tumor in this locality, the diagnosis would probably lie between the following three things, aneurism, cancer, or enlarged left lobe of the liver; but in the present instance no tumor whatever can be detected. If there were a tumor present, there might be a strong pulsation, whether the condition were aneurism or cancer, and in order to make the differential diagnosis, therefore, something further would be necessary. If, then, on examination, we found that the pulsation was lateral as well as forward, it would point strongly to aneurism, since this is not the case with cancerous and other tumors. In certain cases of abdominal tumors, also, we are able to grasp the mass and raise it to some extent, when it will be found that the impulse before noted is lost on account of its separation from the aorta. This of course shows definitely that the tumor cannot be an aneurism.

So much for the palpation of tumors in this region. When we come to practice auscultation over them we not infrequently find that there is a loud systolic murmur in cases where, from other signs, we are able entirely to exclude aneurism. Still further, we sometimes actually get a *double* murmur in tumors lying in contact with the aorta, which are not aneurismal in character. This, I believe, is an original observation of my own, and the point has now been fully established by repeated observations. Formerly I used to suppose, in accordance with the teaching of all existing authorities, that the presence of a double murmur in such an abdominal tumor was absolutely diagnostic of aneurism, but on more than one occasion I have seen it demonstrated beyond question that this was not always the case. Still, it may be stated that, as a general rule, a double murmur is to be regarded as evidence of aneurism. Now, in the case at present under investigation, although no tumor can be detected, we find that there is a double murmur at the seat of the epigastric pulsation. When we listen carefully at this point we get a pretty loud systolic murmur, and, in addition, a somewhat less distinct diastolic one.

On sifting the evidence in favor of aneurism here, therefore, it is found that the only points really in favor of aneurism are two: first, the pain present, and, second, the double murmur. As to the epigastric impulse, it affords no evidence of this condition; and yet I am sometimes called in consultation to see cases where aneurism is supposed to exist simply because there is this abdominal pulsation. It is, indeed, of very common occurrence, and especially among females. In abdominal aneurism the pain depends on pressure upon the spinal column and nerves, and in the present instance, as has been remarked, it is certainly not as significant as it might be. The double murmur, when it exists, is due, first, to the blood rushing into the aneurismal cavity (the systolic murmur) and, second, the recoil, which gives rise to the diastolic. The second sound is not produced until the sac has attained some size. If there were a tumor here I should not attach as great importance to the presence of a double murmur (for the reason, above stated, that double murmurs are occasionally found in tumors not aneurismal) as I now feel inclined to do; and I believe, therefore, that the diagnosis in this case must hinge to a considerable extent on the question whether it is possible to have a double arterial murmur without aneurism, and also without the presence of a tumor. This question I am not prepared to answer definitely at present, since, while I do not remember ever to have met with a case of double murmur under such circumstances as those just mentioned, I do not feel justified in denying the possibility that it might occur. I think, then, that we must rest content to leave this case as yet *sub judice*, and in the mean while continue to treat the patient for aneurism, as has been done ever since his admission. He has been, and is at present, taking the iodide of potassium, which has now come to be recognized as *the* remedy for aneurism. As to how it acts in this condition we can only confess our ignorance, but the fact still remains that in certain instances of the affection the results produced by it have been most remarkable.

Heart Failure in a Case of Ascites and Pleuritic Effusion promptly relieved by the Intravenous Injection of Ammonia. — The next case that I have to show you is one that most of you will, no doubt, remember as having been before the class last week. I will not read the history over again, but will simply remind you that the patient had had hydroperitonæum, for which she had been tapped soon after her admission to the hospital (which occurred three days before), and that the pleural cavity of the right lung was still filled with liquid at the time you saw her. A week ago I dwelt upon the connection, as a general rule, of hydroperitonæum with cirrhosis of the liver, but stated that although in the majority of instances it was found that the latter stood in a causative relation to the former, there was no evidence to cause us to believe that this patient had been addicted to the use of alcohol. As this is the accepted cause of cirrhosis of the liver, we therefore concluded that the present was one of those comparatively rare cases in which hydroperitonæum existed without cirrhosis. A considerable amount of fluid had been removed by the tapping, and the patient, you will remember, was weak and quite nervous.

The subsequent history of the case has proved a most interesting one, and it is on that account that I have now brought it to your attention again. On the day that you last saw her the patient began to suffer very greatly from nausea, without being able to vomit much, and the ineffectual efforts which she made towards emesis caused her much distress. She was ordered a half ounce of whisky every three hours, but in spite of this did not seem to gain any strength, although she did not suffer much from dyspnœa. The following day she was still found to be very weak, but with no marked dyspnœa, and it was also now noted that she was quite apathetic, so that she had to be persuaded to take her nourishment and stimulus. On the day after that the house physician was hastily summoned by the nurse, on account of the extreme exhaustion of the patient. When he reached the bedside he found her almost completely unconscious, that she would continually slide down in the bed, and that she could not be aroused to take notice of anything. The eyes had a vacant stare, the pupils were dilated, the tongue was dry and brown, and the jaw had fallen, so that there seemed to be no question that she was actually moribund. Under these circumstances paracentesis thoracis was promptly resolved upon, and ninety ounces of fluid was thus withdrawn from the pleural cavity. During the operation ten or twelve half drachms of whisky were administered hypodermically; but in spite of this the pulse, which had before been very weak, disappeared altogether at the wrist, while the cardiac impulse grew so feeble that it could scarcely be felt at all. It had been hoped that when the fluid had been removed, and the lung thus allowed to expand, so that respiration might be more satisfactorily performed and the blood more readily oxygenated, the evidently failing forces of the patient would rally, but this did not prove the case. The hypodermic injection of whisky having been found to be of no service in overcoming the extreme exhaustion present, half a drachm of liquor ammoniæ, diluted with an equal quantity of water, was injected directly into a vein of the arm, care being taken first to expose the vessel by dissecting up the skin over it, and that the needle of the syringe directly entered its lumen. The cutting of the skin did not make the slightest impression upon the patient, who was now apparently altogether unconscious, but in ten or twelve seconds after the liquor ammoniæ entered the circulation there was a marked increase in the strength of the pulsation of the heart. At the end of two minutes the pulse could again be felt at the wrist, and after two minutes more she gave a sigh, and began to rouse herself. She was soon able to take four ounces of eggnog by the mouth, and in half an hour from the time that the ammonia was administered she declared herself to be quite comfortable, and was breathing more naturally than she had done at any time since her admission. From this time on she took a considerable quantity of eggnog, which was very well borne, and by evening was still further improved in every way. During the next two days she continued to grow better, and on the third, which was the day before yesterday, she felt well enough to sit up for a time.

I have been exceedingly interested in this case, and the various features of it have been so well brought out in the history that I have just read that it seems scarcely worth while to make any remarks upon it. Still, in order that the most important points may be the more strongly fixed in your minds, perhaps it will be well for me to make a few comments upon them. Here was a patient, with a large accumulation in one of the pleural cavities (having previously had hydroperitonæum in addition), who continued to grow weaker day by day, in spite of the most persistent stimulation, until at length the house physician was called to her bedside to find her actually moribund, as indicated by her whole appearance and condition. Whatever was to be attempted for relief, therefore, must needs be done as promptly as possible. First of all it was resolved to remove the fluid from the chest, under the hope that by thus causing an expansion of the hitherto crippled lung an improvement might be brought about; but, notwithstanding the fact that all through the operation a large quantity of whisky was administered hypodermically, the patient still continued to sink, until her situation seemed as desperate as it could well be. Then it was that the measure was resorted to which I believe was undoubtedly the means of saving her life, namely, the injection of the ammonia into the circulation, especial pains being taken in order that the point of the needle of the hypodermic syringe should actually pierce the coats of the vein, but not transfix the vessel. The effect was certainly remarkable. The idea in employing the ammonia in this way was to tide over the failing system of the patient in this crisis of exhaustion until the powers of nature could rally once more from the depression which had paralyzed them, and the attempt proved eminently successful.

I confess that this practice was something altogether new to me. I had heard of ammonia being used in this way for the neutralization of the poison of venomous serpents in persons who had been bitten by them, but I do not remember ever to have seen the record of a case in which it was employed for the same purpose, and was followed by the same admirable results, as in this instance. Here the special object of the injection was to bring the stimulating action of the ammonia to bear directly upon the failing heart, and this case certainly seems to establish beyond a doubt the utility of this remedy as a cardiac stimulant.

Since the day before yesterday, when the last note was taken, the patient has continued to improve steadily, until to-day we find her in such a condition that there seems to be scarcely any doubt of her complete restoration to health.

Hydroperitonæum and General Dropsy in a Case of Complicated Cardiac Disease, with Probable Cirrhosis of the Liver; Relief from Tapping. — The next case is also one which was presented to you last week. This woman, you will perhaps remember, was suffering from cardiac disease, and the case was remarkable for the number of murmurs that could be heard about the heart. These were as follows: an aortic direct, which was very distinct, a somewhat feeble aortic regurgitant, a mitral direct, a tricuspid regurgitant, and a venous pulmonic murmur. Yet, with the existence of all these signs, we found that there was comparatively little enlargement of the heart, and therefore there was good reason to give quite a favorable opinion of the case, unless there should be present some complication which was not then apparent. On the evening of the day when she was last before you general dropsy became developed in the patient, and it was noticed that there was a hydroperitonæum which was out of proportion to the rest of the anasarca. Consequently this gave rise to the suspicion that there might be some other cause for the dropsical trouble, and especially cirrhosis of the liver. This patient, it seems, occupied a bed in the immediate vicinity of that of the woman who has just been before you, and as she witnessed the operation of paracentesis thoracis of which you have heard an account, and the good results which seemed to her to have followed it, she was seized with a most urgent desire to be tapped.

Partly out of deference to her wishes, and partly because it was believed that the procedure would really be followed with benefit, this was done (three quarts of fluid being drawn off from the peritoneal cavity), and in consequence the patient experienced a good deal of immediate relief. Since then she has been decidedly better than before, although this good result is to be attributed to some extent, I imagine, to the venal effect of the tapping.

She is now able to sit up and to eat beefsteak, and if she should continue to be able to take sufficient alimentation, and assimilate it well, there can be little doubt she will go on to improve still further.

REMOVAL OF A HAIR PIN FROM THE FEMALE BLADDER; OF A SHAWL PIN FROM THE TRACHEA.

BY EDWARD T. CASWELL, M. D., OF PROVIDENCE.

The only apology I have to offer for grouping these two cases is that they both occurred in my practice within the space of a month, and were both in girls of the same age, namely, fourteen.

Case I. I was called into the country January 11, 1879, to see M. N., who twenty-four hours previously had introduced a hair pin by its bent extremity into the urethra. It suddenly slipped from her fingers and was lost, she did not know where. She had suffered considerable pain, and the urine was tinged with blood. After etherizing her I made an examination, and readily detected the hair pin lying crosswise in the bladder. To facilitate its removal I dilated the urethra somewhat with instruments and with my little finger. After trying various forceps with no avail I determined to use a lithotrite, and as a preliminary to this I incised the meatus on either side. I hoped to be able to change the position of the pin, but in this I was disappointed. Therefore, seizing it in the middle of one side in the blades of the lithotrite, I bent it, and with considerable force succeeded in withdrawing one extremity, the rest of course easily following. No disturbance attended the operation. Her attending physician reported that for three days there was slight hæmaturia, but no incontinence, and little or no pain in micturition. She was about the house in three or four days, and in the course of the week he left her as well as usual. At no time was her pulse above 80 or her temperature above 100° F.

Case II. Mary F. was brought into the Rhode Island Hospital February 4, 1879, with the statement that three weeks before she had swallowed a shawl pin, and that "it was in her wind pipe." She was standing with the head of the pin in her mouth, when she coughed, and the pin suddenly disappeared. She had suffered considerable pain, and was much alarmed. On auscultation, rough, coarse râles were heard over the trachea, more upon the left side than the right. On examining her with the laryngoscope I clearly saw and demonstrated to my assistants and others the shawl pin in the trachea, with its point imbedded in the lower surface of the left vocal cord. I could not, or rather did not, see the head of the pin. I at once performed tracheotomy under ether, and to my surprise on opening the trachea I could not find the pin. How it had been dislodged and had fallen down the trachea, after being, as I still suppose, firmly fixed in one place for three weeks, I cannot imagine. But such was the fact. While holding the tracheal wound open with both hands and inspecting the surface of the trachea, the pin was suddenly ejected about an inch above the wound, and as suddenly fell back. It was so instantaneous that but one other person out of a dozen by-standers saw it, and I think it could hardly have been caught if one had been standing ready for that purpose. I examined the trachea thoroughly with forceps as far down as the bifurcation of the bronchi without detecting the pin. The girl was then held in an inverted position, and while the tracheal wound was held wide open I irritated the trachea slightly, and the pin was thrown out upon the floor. It was rusty, about two inches long, with a glass head. The girl recovered without the slightest drawback; she did not even cough, and in less than four weeks the wound was entirely healed, and she was discharged. The case proved most clearly the toleration of instrumental interference on the part of the trachea, but, what is still more surprising, it shows that the trachea tolerated the presence of a foreign body for three weeks without the slightest after-effects.

A CASE OF CHRONIC CATARRHAL PNEUMONIA.[1]

BY WALTER PRENTICE BOWERS.

THE patient is a native of Boston, eighteen years old. Both parents died of consumption, at the age of forty-six years, about six months before this history was obtained, a short period only intervening between their deaths. The rest of the family, consisting of three brothers and one sister, are well, with the exception of one of the brothers, who is said to have had pleurisy, but from the statements made in regard to his case the disease is presumed to have been empyema. The patient's occupation has been that of a clerk in a provision store, and from the nature of his work he has been obliged to be out-of-doors in all kinds of weather, and has been accustomed to hard labor at times. His general health has always been excellent until about a year ago, when a series of events occurred which constitute the history in the case so far as it has any interest for us. After carrying a heavy burden, and while still at work, a tickling sensation in the throat and peculiar taste in the mouth led him to cough, which caused the expectoration of three mouthfuls of clear bright blood. A few days after, the same amount was again expectorated, under similar circumstances, both occasions being preceded by a feeling of heaviness in the left side of the chest. The blood was spoken of as being alike at both times, not coagulated, bright red, and the raising of it was facilitated by the act of coughing. Ever since these hæmorrhages a cough has been noticed, which has been more marked at times, especially on rising in the morning, becoming steadily more prominent, and accompanied by the expectoration of a yellowish-gray matter, which is most abundant in the morning, when the cough is the most severe, but it is lighter colored and more frothy later in the day. Very slight dyspnœa on exertion, loss of flesh, strength, and ambition, complete this list of symptoms, the advent of all of them being referred to the same time, namely, at or soon after the occurrence of the hæmorrhage. The beginning of the disease dates back certainly fifteen months. Soon after the first attack advice was sought at the Massachusetts General Hospital, and ever since then the patient has been an irregular attendant at the out-patient department.

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[1] Read at the Clinical Conference of the third class in the Harvard Medical School, and published to illustrate a method of diagnosis.

The significance of symptoms varies much, according to association and prominence, and, as in this case, some have direct bearing as indicative of the diseases which might cause them, such as cough, expectoration, hæmoptysis, and dyspnœa; others are indefinite and general in their nature, serving only as indices by which one is able to judge of the impressions made upon the general system and of the amount of injury that it has sustained. This latter class of symptoms, such as loss of flesh and strength, are important rather in reference to prognosis than to diagnosis, and therefore they will be considered later under that head.

As a whole, the symptoms unite in indicating where the trouble is seated, and it is necessary to select the most prominent one from which to make a starting-point in the consideration of the affections which might explain them all. Since cough has played the most important part in the history, in that it covers the longest time, seems to be of the most importance in the patient's mind, has steadily increased in severity up to the present time, and all the other symptoms appear to relate to the same source as a common origin, that symptom will be taken as the one from the consideration of which the most information can be gained. Cough is usually a spasmodic reflex action whereby the air is expelled forcibly from the chest with the purpose of dislodging and ejecting some irritating substance from the air-passages. According to the origin and cause, it may be considered as dry or moist cough. When dry it is indicative of simple irritation and purely reflex, as when produced through some perversion of the nervous system, such as may exist in the so-called "nervous cough," or when better evidence is apparent, as in the "sympathetic cough," occurring in connection with some irritation of the stomach, kidneys, brain, or pleuræ. But when moist in character it is rarely associated with any diseases other than those of the respiratory organs, unless the lungs suffer secondarily in their relation to other structures, as in the œdema resulting from cardiac or renal diseases. Cough of this nature always has for its object the expulsion of fluids or semi-solids which have collected in the bronchi or pulmonary structures. Hence, since the cough has been moist in character from the very first, this symptom, modified in this way, points to the pulmonary structures only as the direct cause, which in turn may depend on other organs as causative agents in producing fluid in the air-passages, to be disposed of in this way; and unless the other symptoms may lead to the consideration of other structures, only such diseases as might cause cough of this nature will be discussed.

From the long continuance and progressive character of the disease under discussion we are led to consider only chronic affections which might cause these symptoms, for there is an absence of the signs of sufficient intensity or suddenness of onset to make acute affections probable. The diseases, then, which might give rise to this cough are bronchitis, capillary bronchitis, emphysema, asthma, bronchiectasis, abscess, gangrene, cancer, pleurisy, catarrhal pneumonia, and indirectly cardiac diseases and aneurisms. In order to add more to this list if possible, the symptoms may be examined to see if they can furnish other probable causes to explain them than exist in the list of diseases already given. Hæmoptysis seems to demand attention, for although occurring only twice, and then before the appearance of the other symptoms, yet according to the theories of some authors this is of great significance, and may be a cause of disease as well as a symptom of morbid processes. In order that the proper importance may be attached to it, it is necessary that its source be determined as well as can be at so long a period after the occurrence. Blood ejected from the mouth may come from the posterior nares, œsophagus, stomach, mouth, or air-passages, and it is probable that the latter situation was its source in this case, because of its having been bright red and the act of raising it was facilitated by coughing, and from the entire absence of indications pointing elsewhere as its possible source ; for had it come from the stomach or œsophagus it would probably have been vomited or regurgitated instead of coughed up, and would very likely have been described as darker colored. The absence of symptoms pointing to inflammatory conditions about the mouth and pharynx, taken with an absence of any known cause for such a hæmorrhage and the fact that it was facilitated by coughing, together with the feeling of oppression in the chest, all tend to make it improbable that the origin of the hæmoptysis was from any other parts than the bronchi or pulmonary structures.

The sources of hæmorrhage from the air-passages may be either from the bronchial capillaries as a result of over-distention, or from hæmorrhagic infarctions into the lung substance. In this latter case the hæmoptysis would have appeared as bloody sputa raised after cough, and would scarcely have been in so large quantities unless the infarction had been of such a size as to make its presence more probable by severer symptoms, such as sudden and prominent dyspnœa and pain ; also the expectoration of blood or bloody sputa would probably have lasted over a longer period of time. The hæmorrhage which comes from the bronchial capillaries usually shows itself in precisely the same way as was exhibited here, namely, by a feeling of weight in the chest, succeeded by the welling up of a few mouthfuls or less of blood, which by its irritation causes cough to aid in the ejection of the fluid. So here, too, we have a symptom pointing to the respiratory organs as the seat of the disorder; but since the lung depends upon the circulatory system for its blood supply, all organs which might produce such a trouble must be considered. All diseases which would give rise to this symptom as manifested in this case have already been placed in the list.

Dyspnœa, as a symptom taken by itself, indicates only that there is some obstruction to the proper aeration of the blood, and may be produced either by lessening the aerating surface of the lung, by a diminished flow of blood through the lung, or by anything which would cause obstruction to the passage of air into the lung. This, then, leads to the consideration of both pulmonary and cardiac diseases, and may also imply any and every form of trouble which might interfere with the capacity of the lung to do its work. That the cause of this dyspnœa is located in other organs than the thoracic is doubtful, from the want of evidence indicating any other source and the uniformity with which all signs point in one direction. Dyspnœa, then, does not indicate any other diseases than those mentioned, and is not entitled to any great prominence. Expectoration has been considered in connection with cough, and the character of it will aid in confirming or rendering improbable some of these diseases.

(*To be concluded.*)

RECENT PROGRESS IN GYNÆCOLOGY.

BY W. H. BAKER, M. D.

Total Extirpation of the Uterus. — By far the most practical method of entirely removing the uterus which we have seen described is that first practiced and reported by Professor Freund, of Breslau.[1] We take from the *Medical Times and Gazette* of October 19, 1878, the steps of the operation as copied from the above original report. It is considered essential that the surgeon should have previously performed the operation on the cadaver. The preparatory treatment of the patient is much the same as that for ovariotomy. At the time of the operation, the uterus having been disinfected with a ten per cent. solution of carbolic acid, the patient is placed upon the table, with the head lower than the pelvis, and directed toward the window, that an abundant light may be thrown into the deeper parts of the pelvis.

The incision having been made in the linea alba, as in ovariotomy, the intestines filling the pelvis are raised through the incision, wrapped in a soft linen cloth soaked in a solution of carbolic acid, and held during the operation. "To control the movements of the fundus uteri, a thread is passed through it and held by an assistant. The broad ligaments of either side are now ligatured in three portions." (Fig. 1.[2])

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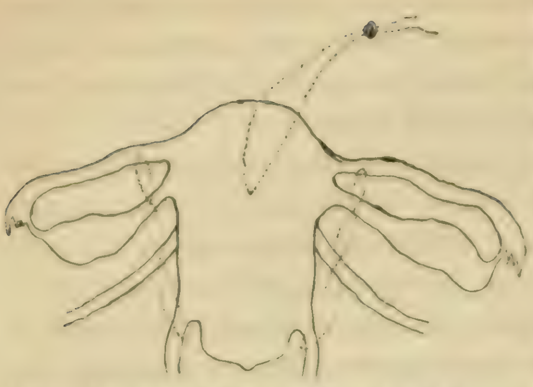
[1] Volkmann's Sammlung klinischer Vorträge, No. 133, and Centralblatt für Gynäkologie, 1878, No. 12.

[2] For the use of the illustrations I am indebted to the courtesy of Mr. T. Spencer Wells, of London.

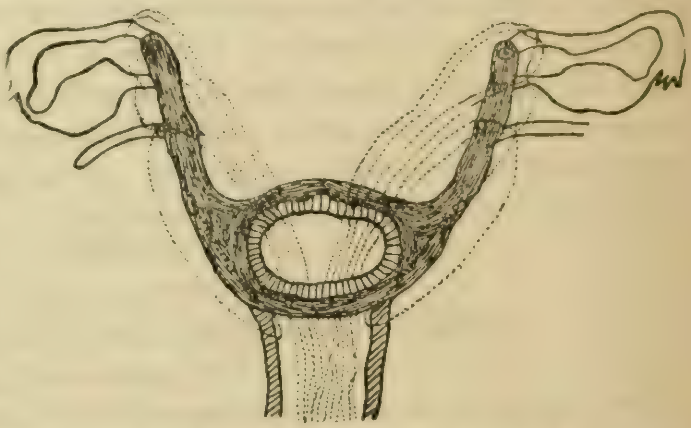
FIG. I



"The upper ligature transfixes the Fallopian tube and the ligamentum ovarii; the middle one passes through the ligamentum ovarii side by side with the upper ligature, returns through the round ligament, and is carried twice through the vaginal wall, first through the antero-lateral part of the vaginal roof into the vagina, and then back through the postero-lateral part of the vaginal cul-de-sac behind the base of the lateral ligament into Douglas's pouch."

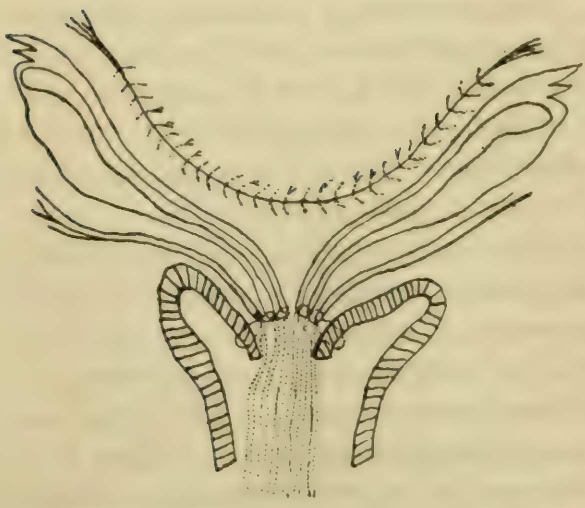
"The uterus is then removed (Fig. 2) through the roof of the true pelvis, the incision commencing in front, two cm. above the limit of the bladder, as marked by the point of a male catheter in that viscus, and running with a bend from the lower ligatures up to the broad ligaments, and then to the back of the uterus, two or three cm. above the deepest point of the pouch of Douglas."

FIG. 2



"After drawing the ends of the ligatures into the vagina, the peritoneal opening is closed (Fig. 3), and the abdominal incision, after replacement of the intestines, is brought together in the usual way."

FIG. 3.



The external dressings and after-treatment are not unlike those used in ovariotomy. The operation is recommended for all cases of cancer of the neck and body of the uterus, provided the "anterior part of the vaginal cul-de-sac is completely healthy." Dr. Fränkel would advise it in cases of irrepressible hæmorrhage due to uterine fibroids which cannot be enucleated, in preference to the removal of the ovaries.

Effect of Neurasthenia upon the Uterus and Ovaries. — We are glad to see that so much attention has been called to this subject within the past year or two by different gynæcologists both here and in Europe. The articles published ascribe various names to the lesion, but in reality attribute the local conditions found to the same cause.

A year ago we referred to an article by Dr. Graily Hewitt on Abnormal Softening of the Uterus. We have since seen another by the same author[1] on Chronic Starvation, in which the writer describes this condition of neurasthenia without using the term, and shows the manner in which some of the changes in the uterus and its ligaments are produced by the inanition necessarily following the long-continued habit of taking an insufficient amount of food.

Dr. S. Weir Mitchell long ago called attention to this fact in his most popular little book on Fat and Blood, and How to Make Them, and Dr. Goodell, enlarging upon it, made it the subject of his presidential address before the American Gynæcological Society last September. In this address he refers to the manifestations of the neurasthenia as hysteria, spinal irritation, and many reflex symptoms, prominent among which are those of a uterine character. The pathology is not considered clear, "but probably consists essentially in mal-nutrition of nerve centres, followed by disturbances in the circulation from weakened innervation. These secondary disturbances consist of local anæmias and of local hyperæmias," which we may have alternately in the same person. Thus the anæmia of the reproductive organs is exhibited by amenorrhœa or by scanty menstruation, by neuralgic and hysterical pains; the hyperæmia by congestion, by dysmenorrhœa, menorrhagia, and leucorrhœa, by uterine flexions and dislocations, etc.

In the treatment of these local conditions, we are to keep constantly in mind that they are merely the local expression of the general neurosis. The fact, however, is well recognized by the author that from some of these local disorders, established as they have been by the neurosis, we may have developed structural lesions which may require special treatment in addition to the general. Near the close of the address, Dr. Goodell expresses the belief that if proper attention were given to the treatment of the neurasthenia it would often obviate the necessity of spaying a woman for pernicious menstruation.

We should be glad to profit from his experience in regard to the changes in position, structure, and condition of the ovaries established by neurasthenia, for we are forced to believe them quite as important as those of the womb, to which his address was devoted. The general treatment recommended in these cases of neurasthenia consists essentially in nutrition, sleep, rest of body and mind, and freedom from pain.

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[1] Lancet, January 11, 1879.

From the articles referred to, and from our own experience, the following local conditions may be named as resulting most commonly from neurasthenia: (1.) Flexions of the uterus from an abnormal softening of its structure. (2.) Versions, or perhaps prolapse, of the uterus from a relaxation of the uterine ligaments. (3.) Endocervicitis from a softened, relaxed, and hyperæmic state of the cervical mucous membrane. (4.) Prolapse of one or both ovaries from a relaxation of its own, together with the corresponding broad ligament.

The first condition we meet with most frequently in the young unmarried woman. The second in the married woman, more especially if she have borne children. The third most frequently, perhaps, in the married and sterile woman. The fourth about equally in married and single women, and usually between the ages of twenty-five and thirty-five years.

FIFTH ANNUAL MEETING OF THE AMERICAN NEUROLOGICAL ASSOCIATION.

The sessions of the association were held this year on the afternoons and evenings of June 18th, 19th, and 20th, at Municipal Hall, Madison Avenue, New York. The president, Prof. F. T. Miles, of Baltimore, was in the chair, and there were present during the meeting Drs. Robert T. Edes and James J. Putnam, of Boston, Drs. F. T. Miles and John Van Bibber, of Baltimore, Dr. Schmidt, of New Orleans, and the following members from New York and Brooklyn: Drs. George M. Beard, William A. Hammond, Frank P. Kinnicutt, Thomas A. McBride, John J. Mason, A. D. Rockwell, E. C. Seguin, Shaw, Spitzka, and Gray. During the afternoon session of Wednesday, June 18th, a paper sent by Dr. Bannister, of Chicago, entitled A Case of Gunshot Wound of the Neck giving Rise to Paralysis of the Cervical Sympathetic and followed by Insanity, was read by the secretary, and discussed by Drs. Hammond, Seguin, and Spitzka; after which Dr. Putnam exhibited a new and cheap form of rheostat, and made an oral communication on the use of high and low tension batteries. In the evening Dr. Beard read a paper on Fear as a Symptom of Nervous Disease, which elicited a general discussion.

Second Day, June 19th. The following gentlemen, having submitted papers which had received the approval of the council, were unanimously elected members of the association: Drs. William G. Morton and R. W. Amidon, both of New York.

A paper by Dr. Rockwell on The Principles which should guide Physicians in the Selection of Batteries for Use in Practice elicited an interesting discussion on the value of the direction of currents, of polar action, etc., which was participated in by Drs. Beard, Gray, Hammond, Seguin, Morton, and Miles. The following papers were afterwards read: A Case of Hemiplegic Contractions and Athetoid Movements, by Dr. Spitzka; A Case of Myelitis (?), with Formation of Vacuoles in the Ganglion Cells of the Anterior

Horns, with specimens and drawings, by Dr. Edes; and The Nervous Centres of the Alligator, illustrated by preparations and beautiful microphotographs, by Dr. Mason.

At the evening session remarks were made by Dr. Hammond in condemnation of metallo-therapy, and, on motion of Dr. Spitzka, the president was authorized to appoint a committee for the purpose of investigating the subject, which should make its report at the next meeting. Dr. Morton read the paper which he had presented as a candidate for membership, entitled The Toxic Effects of Tea, and this was followed by a general discussion.

THIRD DAY, June 20th. The committee on nominations reported the following names of officers, who were duly elected by ballot; President, Dr. F. T. Miles, of Baltimore; vice-president, Dr. R. T. Edes, of Boston; secretary and treasurer, Dr. E. C. Seguin, of New York; members of the council, Drs. F. P. Kinnicutt, of New York, and L. C. Gray, of Brooklyn. The following papers were then read: The Dosage of Electricity, by Dr. Beard; Remarks on, and Demonstration of, the Morbid Condition of the Nervous Centres in Yellow Fever, by Dr. Schmidt; Hysterical Chorea, by Dr. Gray; A Contribution to the Study of Cerebral Localization (paper presented as a candidate for membership), by Dr. Amidon; A Case of Monoplesia of Leg, with Lesion of Opposite Lobus Paracentralis, with specimens, by Dr. Miles; A Case of Mono-Spasm of Leg, with Lesion of Superior Extremity of Opposite Ascending Parietal Convolution, by Dr. Seguin.

At the evening session a discussion on Dr. Amidon's paper took place, and Dr. Seguin then made an oral communication on instances of singular dissociation of ideas in sexual dreams, after which the following papers were read: A Case of Acute Myelitis: Vacuoles in Ganglion Cells of Anterior Horns, by Dr. Seguin; A Study of the Peduncular Tract of the Anthropoid Apes, by Dr. Spitzka; The Tendon-Reflex in the Insane, by Dr. Shaw.

The association then adjourned to meet in New York on the third Wednesday in June, 1880. A full report of the proceedings will appear in Dr. Jewell's *Journal of Nervous and Mental Diseases.*

PROCEEDINGS OF THE MIDDLESEX SOUTH DISTRICT MEDICAL SOCIETY.

C. E. VAUGHAN, M. D., SECRETARY.

A SPECIAL "meeting for medical improvement" was held at Natick, July 17, 1878, the vice-president, DR. HOSMER, in the chair.

Injury of the Skull. — DR. WRIGHT, of Natick, reported the case. A girl aged eight years received a wound from a small pistol bullet near the coronal suture, two inches above and to the right of the right orbit. The bullet was divided, and two thirds entered the cavity of the skull. The pulsation of the brain was visible. The child went to the Massachusetts General Hospital, and was discharged after twenty days with the ball still beneath the bone. Seven days later, in removing a crust from the wound, after the child had been lying upon the wounded side, the father felt and removed the bullet and a spicula of bone. Recovery good, without cerebral symptoms.

Cystic Cancer of Ovaries. — Dr. M. L. Brown, of Natick, read a paper upon this subject, which has since been published in the Journal.

Sore Throat. — Dr. Wright recalled a paper read by him at a previous meeting upon an epidemic of sore throat, etc., of doubtful character, which excited at that time some discussion. He said that the membrane had been examined microscopically by Dr. Marcy, who states that it had all the characteristics of a diphtheritic exudation.

Paralysis of the Bladder. — Dr. B. F. D. Adams reported the case. Mr. H., aged seventy-six, healthy, and not a hard worker, noticed last November a protrusion of the abdomen. About the middle of April he was attacked by severe pain in the renal region, lasting thirty-six hours. There was from this time insatiable thirst, occasional vomiting, progressive loss of strength. The mental operations were sluggish ; hearing more impaired. Urine large in amount, clear, light amber in color, specific gravity 1004-5. Pupils equal and acting well. Tongue protruded to the left, a fact due, as it afterwards appeared, to loss of teeth on that side. Gait tottering, but step equal. The protuberance above the pubes being noticed, the catheter was used, and five pints of urine were removed, with the entire relief of the symptoms. — Dr. Townsend briefly reported two cases. In one the symptoms of enteric fever were strongly marked. A violent catharsis was followed by convalescence within ten days, with no diarrhœa. In the other case an attack of scarlatina was preceded by a violent cholera morbus.

The State Almshouse at Tewksbury. — Dr. Horace Chapin read an account of a visit to this institution. The general impression with regard to cleanliness, ventilation, care of inmates, etc., was very favorable, both in the hospital wards and elsewhere. In the hospital department he mentions two main wards, containing forty or fifty men and seventy-five women ; two smaller wards, one containing half a dozen syphilitic cases, and the other a few of cancer ; a lying-in ward, with twenty or thirty women ; and an infants' ward with as many babies, not sick. In the insane wards there were about three hundred patients, none in close confinement. There were a few surgical cases in another ward. The beds were of iron, and the bedding was clean. Bathing facilities good, and cleanliness compulsory. Food seemed sufficient and good. The newer part is supplied with water-closets, but in the older chamber vessels are used. In some insane wards there were half a dozen common receptacles for forty or fifty patients. During the past three years, with an average of nearly nine hundred inmates, the average mortality has been about thirty-two per cent. In 1877 ninety-two foundlings were received, and eighty-two died within the year. According to the annual report, the story of the year 1876 is not very different. One half of the foundlings die within two weeks, and scarcely one in twenty is alive at the end of two months. The causes assigned at the institution for this mortality are as follows: (1) hereditary disease, (2) exposure before entrance, (3) foul air from overcrowding, (4) artificial feeding. This mortality exceeds that attending the system of "baby farming," which has been so often and so strongly condemned. In contrast to this, Dr. Chapin says that a good many foundlings have been adopted into private families in Somerville with much better results, although three of the four causes named above are not eliminated. Considerable time was given to criticism of the system of large hospitals. He proceeded to show from statistics of capital operations, especially ovariotomy, and also of disease, that the best results have been obtained in the smaller institutions. — In the discussion which followed, DR. Z. B. ADAMS spoke of the institution at Deer Island. At the time when he was familiar with it, with the same class of inmates, including foundlings, there was no such mortality as that attributed to Tewksbury. He would suspect the drainage or water supply. — DR. TOWNSEND said that many of the foundling children are illegitimate, and that the mothers have tried to destroy them even before birth. — In a discussion of the merits of small institutions, DR. VAUGHAN gave a brief history of a home in Cambridge containing from fifteen to eighteen children. In five years past there have been no cases of cholera infantum, few of diarrhœa, and few of serious character of any kind.

OCTOBER 8, 1878. SEMI-ANNUAL MEETING. *Rubber Bandages.* — DR. E. EMERSON, of Concord, read a brief summary of cases illustrating some uses of the rubber bandage suggested by Dr. Martin, of Roxbury.

I. Disease of knee and elbow of two years' standing, with incipient hip disease. J. W., aged eleven, of class called scrofulous, very anæmic, and hyperæsthetic. Various kinds of fixed apparatus had contributed much to his comfort, until the skin took on an unhealthy action. Small pustules formed, and burrowing under the thick epidermis caused large ulcers, which must be dressed through fenestræ. The fixed apparatus was necessarily given up. Suspension in N. R. Smith's splint was tried, but the ulcers, of which there were about forty, did not heal. The rubber bandage was applied from toe to groin, and changed every second day, the suspension being continued. The effect at once was to remove the thick scales; the edges of the ulcers became more pliable, and the excavations began to fill with healthy granulations. In six weeks the skin was in a fairly healthy state. The effect upon the joints, although only palliative, confirms Dr. Martin's statements. The general nutrition of the limb seemed to improve, and the eight bandage gave the joints much rest.

II. Multiple arthritis deformans of fourteen years' standing. J. M., aged thirty-four, had been bedridden one year. The bandage relieved the pains, but brought out a crop of itching pimples, which caused its discontinuance for a few days.

III. Mrs. H. Same disease, of several years' duration. Nearly all the joints affected. A light rubber bandage gave great relief, although the disease progressed slowly.

IV. Mrs. F., aged eighty. Much relief to severe rheumatic pains in wrist and elbow.

V. Fracture of radius, etc., in anæmic subject, with valvular disease of the heart. Extensive phlegmonous inflammation ensued in hand, requiring many deep incisions. The sinuses healed with great difficulty until the bandage was used.

VI. A severe bruise of forehead and eye in a boy of eight. A smooth piece of lead foil was confined with a broad rubber bandage around the head, and the swelling subsided with unusual rapidity.

VII.–VIII. Acute and severe sprains of ankle. Applied rubber bandage, and a plaster splint outside. Both cases did remarkably well. In milder cases the bandage alone might be enough.

Santa Barbara. — DR. MASON, of Brighton, who has spent three winters in Southern California, read a paper upon Santa Barbara as a health resort. After some general observations upon other parts of California, he proceeded to speak especially of Santa Barbara. This place, through its reputation as a health resort, has grown from an adobe village to a large and well-built place. Being upon the coast and protected by the coast-range of mountains, Santa Barbara is warmer in winter and cooler in summer than the interior. The beach is excellent, and the temperature of the sea-water ranges from 60° F. in December and January to 66° F. in September.

The rainy season, so called, is that part of the year in which it sometimes rains in contrast to that part in which it does not rain at all. The number of rainy days in the season varies, and once in about ten years there is a year with scarcely a rainy day. Mr. Bradley, of Illinois, a reliable observer, has kept a careful weather record from February 1, 1876, to February 1, 1877. There were three hundred and ten pleasant days; twenty-nine cloudy days, upon over twenty of which an invalid could be in the open air; twelve showery days, on seven of which an invalid could be out for an hour at a time; ten windy and five rainy days. The average difference of temperature between January and July is 15° F. In five years there was an average of 10.5 days when the mercury was below 45° F., and 8.6 days it was above 83° F. Humidity is 69.5 against 80 at Oakland and 83.5 at Philadelphia. From its position it is exposed to occasional fogs and violent winds. Malaria is limited to river-bottoms and swamps, a small area. Santa Barbara itself is almost entirely exempt. The higher part of the city, frequented by invalids, is dry and healthy. If an inland situation becomes desirable, half a day's ride brings one to a sheltered valley at higher elevation. The invalid should choose a sunny exposure, for there seems to be a stronger contrast between light and shade and day and night than in our climate.

Santa Barbara offers, in short, a nearly perfect climate, with excellent hotels and boarding-houses, cultivated society, very good public and private schools, delightful scenery, facilities for riding and driving, and all at a moderate cost. It is a place for mental and physical rest. The days are adapted for out-of-door recreation and the nights for sleep. Nutrition improves rapidly if organic disease has not advanced too far. This applies especially to pulmonary disease. Croup and cholera infantum are hardly known.

Admission of Women. — A committee was appointed at the annual meeting to solicit the opinions of the members of the state society upon the question of the examination of women. DR. B. F. D. ADAMS reported for the committee that about sixty per cent. had replied. Of these, fifty-eight per cent.

are in favor of admitting successful candidates to full fellowship; thirteen per cent. are in favor of giving a certificate of satisfactory examination; twenty-nine per cent. are opposed to any examination, — that is, seventy-one per cent. are in favor of admitting to some form of examination. The proportions vary somewhat in different sections, — from sixty-three, sixty-four, and sixty-six in the several eastern districts to eighty and eighty-one per cent. in Middlesex and Worcester. The western districts agree nearly with the general average. No decisive action was asked at the councilor's meeting, on account of the pressure of other business. It was thought better to let the subject rest pending the decision of the question of the admission of women to the medical school.

A FEW REMARKS ON ANIMAL TEMPERATURE.

A REPORT FROM THE SUFFOLK DISTRICT TO THE MASSACHUSETTS MEDICAL SOCIETY FOR THE YEAR 1879.

BY FREDERICK C. SHATTUCK, M. D., REPORTER.

Since 1851, when Wunderlich, inspired by Traube, began to make systematic observations with the thermometer in disease, less than thirty years have elapsed; and yet so rapid is the interchange of thought in these modern days it can safely be said that there is no single instrument of precision designed to aid our imperfect senses which is to-day so indispensable to the physician as the clinical thermometer. The labor which has been expended on the field is immense, as is the return which has been obtained in the shape of increased accuracy in diagnosis, prognosis, and treatment. Wunderlich spent sixteen long years in collecting careful observations before he ventured to publish his well-known work on medical thermometry, and many of his conclusions will, no doubt, stand the test of time. Yet so wonderfully complex are all biological problems that we must always be prepared to find what we have, perhaps for years, regarded as the goal itself turn out to be but a milestone on the road to truth. Let me illustrate my meaning by bringing forward two points in human thermometry which we regarded as nearly fixed, but which recent observation and experiment show must be moved much further apart than was thought possible. I refer to the minimum and maximum animal temperature which, in mammals, is consistent with the continuance of life.

In the Sydenham Society's translation of Wunderlich (1871), temperatures below 92.3° Fahr. are said to indicate "deep, fatal algid collapse."[1] In the third edition of Dalton's Physiology[2] (1864), it is stated that "mammalians die if their blood be cooled down below 94° or 95° Fahr." In the sixth edition of the same work[3] (1875), the thermometer falls thirty degrees, and we learn that "mammalians become insensible and soon die when cooled down to 64° to 68° Fahr." In 1870 and 1871 Horvath[4] published the result of his experiments on rabbits and young dogs, which he cooled down by snow, while thermometric observations were taken in the rectum. He succeeded in cooling the dogs down to 40° Fahr., and subsequently restoring them perfectly, as far as could be seen, by the application of warm water. In 1869 Lortet[1] made two ascensions of Mont Blanc, taking careful thermometric observations under the tongue. He found that his temperature during rest varied only a few tenths of a degree at any altitude, but that during exercises, and especially when some time had elapsed since taking food, his temperature decreased progressively as his altitude above the sea increased. On arrival at the summit the thermometer registered 89.6° and 89.24°, but after half an hour's rest it rose again to upwards of 97°. Marcet[2] also made observations on himself in ascending Swiss mountains, and arrived at the same general conclusions as Lortet, the accuracy of whose *observations* cannot be doubted, though they do not agree with those of many others who made similar experiments. Of these latter I will select Clifford Allbutt[3] who found that altitude had no effect, and exercise an elevating rather than depressing effect on his temperature, with only one or two exceptions. His observations covered a number of days, and though the weather did not permit him to reach the summit of Mont Blanc (15,780 feet), he once attained 12,000 feet, and 9000 feet a number of times. Carpenter thinks that the different results of Lortet and Allbutt are due to the different physiques of the observers, and if this view be correct it affords a new and striking example of the large allowance which must ofttimes be made for individual peculiarity, whether in health or disease. In 1874 I saw in Berlin[4] a man in Traube's ward, brought into hospital insensible after prolonged exposure to a temperature of about 32° Fahr. and the ingestion of an enormous quantity of alcoholic drink. His temperature on admission was 76°, but he recovered within a few days, and this is the lowest human temperature, with subsequent recovery, with which I am acquainted. In asthma and morbus cæruleus a temperature as low as 78° has been noted.

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[1] Page 7. [2] Page 254. [3] Page 312.

[4] Centralblatt der med. Wiss., 1870, page 415.

A few words now as to maximum temperatures. Wunderlich[5] tells us that temperatures above 107.6° "indicate in all probability a fatal termination in every known disease except relapsing fever." In Dalton's[6] sixth edition (1875), we read "Mammalians die when the blood is heated up to 45° (113° Fahr.), precisely the normal temperature of birds." In that same year the medical world was startled by a case of injury to the spine, reported by Mr. J. W. Teale,[7] in which, during a period of seven weeks, the recorded temperature never once fell below 108°, during one week ranged between 114° and 118°, on one day reached the extraordinary height of 122°, and yet recovery took place. I am aware that this case has not obtained universal credence, but in view of the high character and thorough competence of the observers, the pains which were taken to eliminate sources of error, and the publication since then of a number of cases of recovery after temperatures which widely overstepped what, until within a very few years, was believed to be the "dead line," I do not hesitate to avow that the probabilities are, in my opinion, very strongly in favor of the accuracy of Mr. Teale's observations. The *a priori* arguments against it are obvious, but we in this neighborhood have had at least two striking examples of the fallibility of *a priori* reasoning in the triumph of anæsthesia, and the years which Phineas Gage lived after a crowbar had traversed his brain.

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[1] Wunderlich, o. c., page 445, translator's note.

[2] Lancet, January 1, 1870.

[3] Journ. Anat. and Physiol., 1873, vol. vii., page 227.

[4] Boston Med. and Surg. Journ., 1875, i. 273.

[5] Page 7. [6] Page 312. [7] Lancet, March 6, 1875.

Cases are also reported of recovery in sunstroke after recorded temperature of 109.2°[1] and 113°;[2] in cerebral rheumatism, 110°;[3] in convalescence after measles, 107 ;[4] in the commencement of typhoid, 108.2;[5] in convalescence after typhoid, two cases, 111°;[6] and two cases in which no precise diagnosis could be made, 108°[7] and 115.8°;[8] and my search of the literature of the last few years has been far from exhaustive.

There is one other point brought up by the consideration of some of these cases which is of fresh interest, and of which we shall, I suspect, hear more. In four[9] of them the high temperatures were often very evanescent, the thermometer falling from a very high to nearly the normal point within half an hour, or even less. All four cases were women, and more or less hysterical, — so, indeed, was Teale's case, — putting us on our guard against deception. It is not my intention here to enter into a discussion as to whether deception was practiced or not. The point is ably discussed by Dr. Donkin, whose article is readily accessible; and I will simply state that the internal evidence and his reasoning convince me that the readings were not due to deception, and experiments on myself lead me to agree with him in disputing the statement of Sellerbeck,[10] that it is easy to raise the mercury to 108° in three minutes by rapidly rotating the bulb between the bare skin of the arm and the thorax. I will also take this opportunity of putting on record a case of high evanescent temperature which has occurred in my own practice. A year ago I had under my charge a boy twelve years old with typhoid fever, in whom occasional flushes of heat were noted by the attendant, a man of far more than common trustworthiness. The flushes never occurred at the time of my visits, and my attention had not then been specially called to these transitory hyperpyrexias. The eleventh day after the boy took to his bed I recorded, myself, the morning and evening (ten P. M.) temperature as 103° and 102.2°, but about four o'clock in the afternoon the attendant noticed that the patient was in one of these flushes, and, taking the temperature, found it to be 109.6°. Thinking that he must have made a mistake, he tried again, but obtained the same result. He is quite sure that the flush did not last above half an hour, but the thermometer was unfortunately not used again till my visit in the evening. After this I had the temperature taken every two hours, but the flushes did not seem to recur, though three days later 107.24° was recorded at eight P. M., and two hours later 100.76.° The boy died at the end of the third week; the autopsy confirmed the diagnosis of typhoid, and I have no doubt whatever that the observations were correct. The boy was too dull and typhoidal to allow me to entertain the idea of any deception on his part.

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[1] Abbot, Boston Med. and Surg. Journ., July 11, 1878. Mason, ib., March 20, 1879.

[2] Parkes, Chicago Med. Journ. and Exam., 1878, ii., page 391.

[3] Da Costa, Am. Journ., January, 1875.

[4] Iliffe, Lancet, November 23, 1878.

[5] Kartulis, Lancet, April 26, 1879.

[6] Donkin and Cheadle, Lancet, March 15 and 22, 1879.

[7] Smith, quoted by Donkin, l. c.

[8] Ormerod, Lancet, November 9, 1878. Also quoted by Donkin, l. c.

[9] Donkin, Ormerod, Iliffe and Smith.

[10] London Med. Record, April, 1878.

Briefly stating conclusions, I have endeavored to show, (1) that the range of animal temperature which is not incompatible with human life is much larger than has, until very lately, been supposed, extending in all probability at least from 76° to 122°, or forty-six degrees; and (2) that very remarkable and sudden oscillations of temperature, covering many degrees, sometimes occur, which cannot at present be satisfactorily explained.

GARNIER'S ANNUAL DICTIONARY.[1]

As in previous years, this volume for 1878 is a welcome visitor. In his introduction the author states that, faithful to its title, it is unique in offering in one compact volume of moderate price a succinct and precise analysis of progress already made or nearly accomplished, and in setting aside such speculations as can be verified only in a distant future.

It is to be regretted that in a work so valuable in many respects his national antipathy to the Germans should lead the author to detract from the merit of their investigations and discoveries in medical science.

The dictionary refers with considerable detail to the discussion and legislation in the different states of Europe and in this country regarding medical education. Notwithstanding the long discussions on hygiene, legal medicine, and the other branches of the art of healing which were held in Paris on the occasion of the exposition, and elsewhere, there have been no great discoveries or innovations to mark the year. Under the head of Progress in the Means of Diagnosis, mention is made of the employment of the thermometer on the walls of the thorax to determine the existence of inflammatory processes in the underlying portions of the lungs or pleuræ.

The employment to a large extent of hypodermic injections of medicines in therapeutics is advocated, and the statement is made that we ought not to reject a drug because it has failed under one form of administration; we ought to try the different ways of absorption before casting it aside.

Some brilliant advances have been made in surgery during the past year. Especial reference is made to what has been accomplished in this country by Dr. Bigelow in lithotrity at a single séance, by New York surgeons in the treatment of diseases of the urinary organs, and by Dr. Sayre in the treatment of diseases of the spine.

In referring to experiments upon animals, conducted by M. Raynaud, in which immunity from vaccine and variolous disease was secured without the formation of a pustule, mention is made of the demonstration of the same point by Dr. Cotting in 1872.

The dictionary also quotes largely from articles which have appeared in the

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[1] *Dictionnaire annuel des Progrès des Sciences et Institutions médicales.* Par M. P. GARNIER.

JOURNAL from well-known physicians. Among them may be mentioned that of Dr. Curtis on Hydrophobia; of Dr. Chadwick on Rupture of an Abdominal Cyst by Palpation; and of Dr. Hosmer on a Peculiar Condition of the Cervix Uteri, which is found in some Cases of Dystocia.

THE VALUE OF SOCIETY WORK.

WE have endeavored to furnish to our readers this spring full accounts of the annual meetings. Without doubt the societies have every reason to be encouraged with the progress made in the character of the work, and the increased interest manifested by the profession, but it is difficult to avoid the conviction that a great deal of energy is expended in producing small results, and that the time of the meetings and the space of the report is frequently occupied by the reading and publishing material of benefit to but few beside the authors. Our journals were never so crowded with society reports as at the present time, yet the tendency of the general reader to skip this part of the number is, we should judge, upon the increase. One of the most obvious defects is the absence of that feature which gives their peculiar value to the proceedings of a society, — the discussions, by means of which the opinions of a number of individuals on a given subject are collected in a convenient and instructive form. A large amount of time may be consumed in the reading of an elaborate paper on a subject with which few members are familiar, and none have had an opportunity to interest themselves in beforehand, and the reader may congratulate himself if a few intelligent questions are asked by a considerate friend to save his paper from being totally ignored. The examination of a specimen or a chat with professional friends is all the " science " a zealous member finds to repay him for the sacrifice of his time or his evening of hard-earned rest. The work is usually of a desultory character. A good paper may be passed by in silence, while trivial matters, particularly certain popular subjects, painfully familiar to society-goers, possess the charm of perennial freshness to certain individuals, and are always sure to excite a lively discussion.

The evidences of literary training, practice in the art of recording, bedside observations, or skill in debate are, in Boston, at least, certainly rare. The reports of New York societies, as well as those of Philadelphia, present a favorable contrast. The results obtained by them show the traces of careful supervision from some presiding or directing officer. A subject is chosen for, or offered by, an able expert; the *dramatis personæ* of the discussion to follow are selected and their parts assigned to them beforehand. The result is an interesting meeting, a large attendance, and a valuable lesson in the art of clinical study, which the rank and file are enabled to profit by. A habit is soon acquired of conducting the meetings upon this plan, which makes them valuable instruments of instruction. The system is carried still further in England, where special subjects are assigned to a committee for investigation and experiment, the report being the basis of an elaborate discussion. It is by some such devices that medical societies can be raised to a condition of usefulness, or be prevented from degenerating into mere social gatherings for professional gossip.

The specialists, as a rule, have set the general practitioners a good example. Foremost among these we should place the American Gynæcological Society, which, however, has the great advantage of claiming as members men who lead the world in their own branch. We fear the day is far distant when we shall see surgeons or general practitioners of eminence evincing the same amount of public spirit which has justly placed this department at the head of American medicine.

Without venturing to criticise the work of other cities, we can safely affirm that the time has come for a thorough reform of the methods of conducting our Boston societies. There are one or two which might easily be disbanded, or devoted to a specialty, as pathology ; the Obstetrical Society could with advantage open its doors to the medical public, whose presence as guests might stimulate the members to disgorge their hidden treasures ; it might be advantageous for the meetings of adjacent counties to be held in common. The all-important element of success is the existence of an active autocratic and organizing head who shall stimulate the lazy, keep down the irrepressible, and make all members feel that membership carries with it a responsibility from which they cannot escape.

MEDICAL NOTES.

— Dr. Tilbury Fox, the distinguished dermatologist, died suddenly from disease of the heart, while making a brief visit to Paris.

PHILADELPHIA.

— A case of much medico-legal interest occurred recently in this city. A man named Parr, about sixty years of age, had been convicted of murdering his daughter by stabbing her with a knife. During the trial he had been in excellent health, but while standing up to receive his sentence he showed some nervousness ; finally he sank heavily back in his chair, and tried to rise again but could not stand up. The by-standers noticed some spasmodic twitchings of the face, the arms were thrown up several times, and it was at once concluded that the criminal had taken strychnia, with the intention of escaping the gallows, as he had often threatened to do. Active treatment was instituted, although there were no severe tetanic spasms present. Seventeen hours later the patient died of asthenia. He had marked albuminuria, with fatty and granular casts in the urine, and at the post-mortem examination advanced cirrhotic disease of the kidneys was found, leading to the idea that the man had really died of fright and uræmic poisoning. The contents of the stomach were analyzed by a chemist, who found something that gave a color test, but no free strychnia.

During the trial, the ingenious theory was offered by the defense that the man was not responsible for his actions, because when he was young he had sustained a fracture of the skull, which had changed his disposition and made him irritable. Surgeons were brought on both sides of the case : some testified that there was evidence of an old fracture (but withheld their opinion as to its bearing upon the murder, as so many years had passed without symptoms of brain disorder or meningitis); the others also found the irregularity in the skull, but denied that it was caused by a fracture, as a corresponding depression existed on the other side of the head. Strangely enough, after death, the examination of the calvaria failed to settle the question, and both parties claimed that their views were confirmed. The reputed fracture was said to have occurred nearly half a century before, so that time may have restored the relations of the tables of the skull, but it is certain that upon sawing through the depression the diploë was perfect, and gave no evidence of abnormality. The dura mater beneath was healthy. The coroner's verdict has not yet been rendered as to the immediate cause of death.

— In a discussion which recently took place at the Philadelphia County Medical Society upon kolpo-cystotomy, and the relative merits of the two prevailing postures of the patient for gynæcological operations, but with especial reference to operations on the anterior wall of the vagina, Dr. H. Lenox Hodge said that if any one would practically test the relative merits of the "knee-elbow" position and the "breech-back" position of the Germans, he must soon become convinced of the superior merits of the latter. It is not simply a position on the back, but the breech is so elevated by strongly flexing the thighs that it rises above the abdomen, and the vulva is directed upward toward the ceiling. The pressure of the viscera brings the vaginal surface of the urethra to the orifice of the vagina, and it can be operated upon almost as easily as if it were on the exterior of the body. In the knee-elbow position the distention of the vagina with air draws the parts away from the operator into the interior of the body. This renders the employment of the knife more difficult and the use of the cautery more dangerous. Dr. Wilson, of Baltimore, in using the cautery in the knee-elbow position for cancer of the uterus, found it necessary to employ a hollow cylinder of wood to protect the surrounding parts. The breech-back position of Professor Simon has all the advantages of the knee-elbow position of Dr. Sims, without its disadvantages. As regards the knife and the thermo-cautery, each is best adapted to different conditions. When it is desirable to have the wound quickly closed, use the knife. When it is necessary to keep it open for a long time, use the cautery. The sloughing caused by the cautery tends to keep the wound open. It is a great advantage, when possible, to do without any foreign body in the wound. In cases of cystitis, the presence of even the beautiful instruments of Dr. Smith must cause additional irritation. Metallic catheters have some advantages over the flexible, but after operations and in bad cases of irritable bladder the soft catheter is more easily borne and causes less irritation. In the male this has been strongly insisted upon by Sir Henry Thompson. The laying open of the whole urethra is not recommended as an ordinary practice in kolpo-cystotomy. It was done exceptionally only, in one case.

CHARLESTON, SOUTH CAROLINA.

— Our correspondent writes under date of June 27th: Though sanitary matters more particularly engross the professional mind at the approach of summer, yet other interests can harass us sometimes. The "doctors" are wonderfully provoked, especially the younger members of the fraternity, at this "licensing physicians," which so-called "law" the city council of Charleston, ignoring the decision of some of the other States on this subject, seems determined to enforce. Several meetings have been held, not to resist the law, but to protest against the legality of the tax. It may interest your literary readers to learn that when it came to the knowledge of the poet Hayne — now in this city — that the medical profession were actually assembled to advise together how they might assist each other, embarrassed by the non-payment of the license tax, the impression made upon his mind found spontaneous expression as follows: —

"License! for what? to stop the turbid flow
Of human anguish and of mental woe!
With stress of time and troubles, cure and art,
To heal the throbbing brain, the broken heart.
What! shall we, armed by slow and stern degrees
To baffle all the shapes of fell disease,
Be made the foot-balls of malignant hate
To fill the hungry coffers of the State,
Because the State permits our ardent zeal,
And condescends to say, 'Go forth and heal'?
Tax next the bounty of God's liberal air
That fans the cheek of sickness and despair;
Levy black-mail where'er the couriers run
Of vital light winged from the central sun,
And let all free beneficence be driven
From ingrate earth to seek its native heaven!"

The health of the city is remarkable; last week there was not *one* death from fever of any kind. The thermometer indicates the coolest range we have ever known at this season. The thermal birth-point of our troublesome mosquito (*culex pipiens*, as the entomologists call it) has been so notably interfered with, that we have actually slept without mosquito nets until a few nights ago. This circumstance might well modify the prognostications respecting yellow fever of those who attribute the disease to local causes, conditions of heat and moisture, organic decay, and germs. If the supposed germs of disease were only tangible microscopical entities, the advent of these tormenting little mosquitoes might suggest curious experiments, if, as helminthologists affirm, they suck up the "*filaria sanguinis hominis*" when feeding on hæmatozoal patients. We shall write you soon concerning the sanitary condition of our city by the sea.

ST. LOUIS.

— The warm weather has increased the death-rate in St. Louis very materially, especially among the children. Last summer the first cases of sunstroke here occurred on the 13th of June; this year the first two occurred on the 14th of the same month. Fortunately since that time the temperature has been too low for a repetition of last year's scourge.

— The dispatches up to the 20th of June, from Memphis, Vicksburg, Jackson, Miss., Grenada, Holly Springs, and a number of other places visited by yellow fever last year, report that the health outlook has never been more favorable; that in no instance has there been any evidence of the return of yellow fever; and that quarantine regulations have been established, ready to be enforced should any exigency arise.

— Dr. James M. Youngblood, for a number of years a well-known physician in St. Louis, died on the 24th of June, in the forty-fifth year of his age, from the effects of a hepatic abscess.

— The politics of our city, as far as they refer to our health department, have been settled, and result in no important changes; Chas. W. Francis, the health commissioner, Dr. D. V. Dean, in charge of the City Hospital, Dr. P. V. Schenck, in charge of the Female Hospital, and Dr. N. De V. Howard, in charge of the Insane Asylum, all being reappointed.

— The convention of medical colleges made a very strange mistake, showing ignorance upon a subject in regard to which it should have been informed, in recommending the St. Louis Medical College to increase its tuition to seventy-five dollars. Its tuition is one hundred and five dollars, and has been so as long as we have known anything about the college.

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THE MEDICAL EDUCATION OF WOMEN.

Mr. Editor, — An abstract from a letter recently received from a medical student at Zurich seems to indicate that, possibly, there may be some mistake about the remark in your editorial on admission of women to Harvard (June 5th), namely, that Zurich was about to give up her plan of educating women in medicine. If you are willing, I wish you would publish the extract, for it certainly indicates that one woman, at least, has gained the respect and confidence of her teachers: —

"Our cause gains friends every year, and perhaps nowhere is it more noticeable than here. Even Hermann, our professor of physiology, has a woman for his assistant this term. She is a Swiss, and had worked with him as student, so he knew what he was doing when he took her as assistant. And Professor Rose, the surgeon, has had a woman for his assistant for two years. I think I have not written to you since I accepted this position with him. I like the place very much, but have to work very hard to keep up with my work. [Here follows a description of the various surgical operations at which she has assisted, which includes nearly every operation ordinarily performed.] Professor Rose treats me splendidly. I could not ask any more from him or from the other doctors, so you may imagine I am happy and contented."

Permit me also to make a few suggestions on the topic. It was with regret that I read your leader of last week. It has been evident to me for many years that, whether we male physicians liked it or not, women would enter the profession, as they have been rising into many other places of emolument and trust during the past quarter of a century. It has seemed to me absurd to try to keep our profession free from them, and the only questions with me have been by whom and in what manner they should be educated. I have always held that it is better for both sexes to have separate instruction, certainly in some departments. When I was professor I took the ground that upon some subjects the truth could be freely spoken to either sex *alone*, whereas a portion of truth might and probably would be lost to *both* parties if they were joint listeners. I have therefore always opposed coeducation in medicine, however much it might be possible and profitable in other departments of learning.

The next question, namely, By whom should such instruction be given? I decided very speedily. I have too much respect for our venerable *alma mater* to admit for an instant that any institution but Harvard should give that instruction to Massachusetts women. Harvard stands first in Massachusetts, at least, and I mentally and most stoutly denied that it was morally right for her to send away any of her children to seek instruction elsewhere when she could give the best herself. I regretted that the university did not seize the opportunity which was offered when the Woman's Medical School, established by Mr. Gregory, was given up. By that failure the building and the school fell into the hands of others. I understand that many women are being imperfectly educated, and sent out into the community, which fact might have been prevented had the friends of female medical education and Harvard College then been able cordially to coöperate. Doubtless many of the professors of the Harvard school could have lectured at the new building, but, if necessary, others and adjunct professors could have been appointed to undertake the new task for the few who would have been unable to do so. Female medical education would thus have been established on an excellent foundation.

But what course should be pursued now by Harvard? I think she should offer to teach women in medicine, as she has begun to educate them in the collegiate departments. I believe that in consequence of the reputation that the medical school now has, and of its great advances towards a higher education in medicine, many women in this whole country who now feel forced to go to Europe for a medical education would flock to the new school, and that, within a few years, *large pecuniary results* would arise, as they have already arisen under the "new departure" taken for men. That so-called "new departure" is, I think, no longer on trial, but in full tide of successful work. Hence the argument used by the opponents of all medical education for females by Harvard at the present time, namely, "that the new course is still on trial, and must not be interfered with by any extraneous circumstances," falls to the ground.

In conclusion, let me make a prophecy. Having watched the "entering of the wedge," which began at least twenty years ago in the Massachusetts Medical Society, I feel assured that in a much shorter period Harvard will graduate women in medicine, with the *cheerful submission* of some, and the hearty "God speed" of all reasonable and reasoning men and women.

Yours truly, HENRY I. BOWDITCH.

113 BOYLSTON STREET, *June* 17, 1879.

[Our objections were directed against the coeducation of the sexes, not against the medical education of women, as Dr. Bowditch implies. There is a dissatisfaction with medical colleges for women among the patrons of female doctors which does not correspond with the accounts we receive of those institutions. One would think that women would take a pride in conquering failure without the aid of the other sex. By such a course they would gain the respect and sympathy of all. The experiment in medical education at Harvard is far from completed. A fourth-year course has not yet been added;

the examination for admission is still in a provisional stage; the new building, with many modifications in instruction which it would bring with it, is yet to be built. Harvard is still far behind the average European school, and cannot afford to give her attention to outside issues until she has completed her great task.

We find nothing in the letter from Zurich which contradicts the statement we borrowed from a German paper. We should be glad to see a history of the coeducation experiment prepared by the faculty of that university. — Ed.]

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LETTER FROM CHICAGO.

Mr. Editor, — Mayor Harrison, it is generally conceded, is not going to disturb Health Commissioner DeWolf, who was appointed by ex-Mayor Heath in 1877. When the work of the health department during the preceding administration is considered, the wisdom of this policy becomes apparent. Perhaps in no department of the city government was the improvement in the condition of things so marked, during the last administration, as in this one of the health department. The expenses were reduced; the city was cleaned up and brought into a much more hygienic condition than had been the case for years before; a monstrous stink-hole known as Healy Slough, that had been a pest for years, was filled up with earth, and made ground for building lots; and, best of all, the foul odors that formerly nauseated the whole town whenever the wind was in the southwest, and emanating from the rendering and fertilizer establishments, if not entirely suppressed, were reduced to a minimum. The result last mentioned was attained through a constant legal, police, and almost personal warfare, kept up for many months on the part of the commissioner and mayor.

A conscientious effort seems to have been made to carry out the rule requiring a red card bearing the words "Scarlet Fever Here" to be posted on every house wherein this disease is discovered. The effort has been attended with only partial success, however. Many physicians, there is good reason to think, evade the law; they find it so difficult to arrive at a correct diagnosis in cases of scarlet fever that often they are not sure of a case till it has recovered or died. And no one can tell how often the deaths in such cases are reported to be due to diphtheritic sore throat, to nephritis, or some other disease than the real one. The system of placarding was resorted to in the belief that it would hinder the spread of the disease. The profession is divided as to whether this result is accomplished in any degree. With the experience of the past three years it can hardly be doubted that the inauguration of the system was a misfortune to the health department, at least.

The latest move in the right direction — a measure, too, of the previous administration — is the ventilation of the sewers by the covering of the manholes in the streets with perforated iron covers. All the paved streets are to be thus treated, and the work is now well under way. This measure must be a great blessing to the people. It will take a concentration of sewer gas out of thousands of dwellings, in which, heretofore, for the want of ventilation of the house, sewers upon the roof, or otherwise, this dangerous annoyance has existed; now even criminal neglect in construction of house sewerage is made powerless for evil. Notwithstanding all its advantages some sensible people are bewailing the pollution of the atmosphere of the street by the ventilators, and picture (as one has in the daily prints) the deplorable consequences to the people who take such atmosphere through windows into their houses to breathe.

Professor Byford has recently received an official invitation to attend the forthcoming annual meeting of the British Medical Association, and to deliver an address before that body. The association meets in the early part of August at Cork. Professor Byford will accept the invitation.

An effort is being made in the board of commissioners to legislate the present medical board of the County Hospital out of existence, and put the institution in charge of a paid superintendent with a consulting staff of physicians. It is unlikely that it will succeed.

SHORT COMMUNICATIONS.

THE TREATMENT OF COLOR-BLINDNESS BY THE USE OF A SOLUTION OF FUCHSINE.

BY PETER D. KEYSER, PHILADELPHIA,
Surgeon to Wills Eye Hospital, etc.

Since writing the report on color-blindness read before the Pennsylvania State Medical Society, I have had the good fortune to test the suggestion of Javal for the cure of this defect by the use of a solution of fuchsine between thin plates of glass, and although skeptical upon the idea I found that great improvement took place in its use in this following case: —

Charles S., aged forty-five, German, came to me May 14, 1879, saying that, although a dyer by trade, and in business since boyhood (his father having a dye-house in Germany), he was color-blind, and had been so as long as he could remember. He made his dyes according to the receipts furnished him, and until they looked like the sample to him, but at the same time he could not distinguish purple from blue. Reds on green or blue he could not see; that is to say, he could not distinguish red tinges in any shade in which green or blue were combined. A gray-brown looked the same as green to him, a lead was pink, a deep blue was purple; a clear brown and an olive green were one color in his eyes. He could not see a red tinge in a mixture with yellow. Browns all had a green shade. On several different occasions I have tested him by day and by night with an aqueous solution of fuchsine (gr. i. to f℥i.), contained between two thin glass plates which are held before the eyes, and I found that it invariably corrects the defects; the colors become clearer. All blues become bluer. Browns are correct. He sees the red tinges in the shades, which he could not see before, but knew they were there from the mixture used in making the dyes. Purples and blues are distinct, the red on the purple becoming clearly defined. The difference between the brown and the olive is distinctly seen. When red is on yellow the red is brought out. Greens are more positive. Without the fuchsine all browns have a greenish cast; with the fuchsine the red comes out and the green fades away, showing clear brown. When there is no red in the color the fuchsine does not cause such a shade over all the colors as it does to the normal eye.

This is a very clear and interesting case, as the man is a bright, intelligent person, prompt in observation, and naturally interested in his situation, as it has prevented him from holding most excellent places in dye-houses. The cause of this action of fuchsine has as yet not been explained, but no doubt it arises from the power of polarization in separating and absorbing certain chemical rays of the spectrum.

REPORTED MORTALITY FOR THE WEEK ENDING JUNE 28 1879.

Cities.	Population estimated for July, 1879.	Reported Deaths in each.	Annual Death-Rate per 1000 during the Week.	Percentage of total Deaths from				
				The Principal "Zymotic" Diseases.	Diarrhœal Diseases.	Diphtheria and Croup.	Scarlet Fever.	Pneumonia.
New York	1,085,000	562	27.08	35.94	20.28	3.56	4.98	4.45
Philadelphia	—	—	—	—	—	—	—	—
Brooklyn	564,400	229	21.16	30.13	19.21	4.80	3.49	5.67
Chicago	—	185	—	36.76	27.03	4.32	2.16	2.16
St. Louis	—	162	—	36.42	29.01	1.23	—	—
Baltimore	365,000	235	33.57	40.00	31.91	1.70	3.83	2.55
Boston	360,000	117	16.94	17.95	5.98	9.40	—	8.55
Cincinnati	280,000	125	23.28	40.00	26.40	—	11.20	1.60
New Orleans	210,000	116	28.72	21.55	12.92	1.90	—	2.58
District of Columbia	160,000	103	33.57	38.83	33.98	—	.97	—
Cleveland	—	—	—	—	—	—	—	—
Pittsburgh	—	71	—	45.07	32.39	7.04	4.22	2.82
Buffalo	—	—	—	—	—	—	—	—
Milwaukee	—	42	—	21.43	4.76	16.67	—	2.38
Providence	101,000	—	—	—	—	—	—	—
New Haven	60,000	—	—	—	—	—	—	—
Charleston	57,000	22	20.13	9.09	9.09	—	—	—
Nashville	27,000	13	25.08	30.77	30.77	—	—	—
Lowell	53,300	18	17.60	27.78	5.55	11.11	5.55	—
Worcester	52,500	10	9.93	10.00	10.00	—	—	—
Cambridge	51,400	12	12.17	16.67	8.33	8.33	—	—
Fall River	48,500	19	20.43	42.11	5.26	5.26	15.79	—
Lawrence	38,200	12	16.38	33.33	25.00	8.33	—	8.33
Lynn	34,000	13	19.94	23.08	—	23.08	—	—
Springfield	31,500	6	9.93	—	—	—	—	—
New Bedford	27,000	5	9.66	—	—	—	—	—
Salem	26,400	8	15.80	12.50	—	—	—	—
Somerville	23,350	9	20.10	22.22	—	11.11	11.11	11.11
Chelsea	20,800	3	7.52	—	—	—	—	—
Taunton	20,200	3	7.74	—	—	—	—	—
Holyoke	18,200	8	22.92	37.50	12.50	—	12.50	—
Gloucester	17,100	4	12.20	25.00	—	—	25.00	—
Newton	17,100	—	—	—	—	—	—	—
Haverhill	15,300	3	10.22	66.67	—	66.67	—	—
Newburyport	13,500	8	30.90	25.00	—	—	—	—
Fitchburg	12,500	3	12.51	33.33	—	—	33.33	33.33

Two thousand one hundred and twenty-six deaths were reported: 710 from the principal "zymotic" diseases, 460 from diarrhœal diseases, 220 from consumption, 81 from diphtheria and croup, 75 from scarlet fever, 69 from pneumonia, 34 from bronchitis, 24 from whooping-cough, 18 from malarial fevers, 14 from measles, 14 from erysipelas, 13 from cerebro-spinal meningitis, 12 from typhoid fever, three from pleurisy, two from trismus nascentium, and one from small-pox. From *bronchitis*, 13 deaths were reported in New York, four in Brooklyn and Chicago, three in St. Louis, two in Boston, and one in Cincinnati, New Orleans, Pittsburgh, Milwaukee, Lowell, Worcester, Cambridge, and Taunton. From *whooping-cough*, 24 in New York, three in Brooklyn, two in St. Louis, Baltimore, and Boston, and one in Cincinnati. From *malarial fevers*, nine in New York, four in St. Louis, three in New Orleans, and two in Baltimore. From *measles*, six in New York, three in Baltimore, two in Brooklyn and St. Louis, and one in Pittsburgh. From *erysipelas*, six in New York, three in Chicago, one in Brooklyn, St. Louis, District of Columbia, Salem, and Newburyport. From *typhoid fever*, three in District of Columbia, two in New Orleans, one in Chicago, St. Louis, Cincinnati, Lowell, Fall River, Holyoke, and Newburyport. From *trismus nascentium*, one in District of Columbia and one in Charleston. From *small-pox*, one in New York. One death from sunstroke was reported in District of Columbia, where the death-rate for whites was 26.49, colored 47.18.

Allowing for cities not reported, the total mortality is considerably greater than for the previous week; pulmonary diseases remain about the same; the striking and rapid increase in diarrhœal diseases continues, the reported deaths for the past six weeks being respectively 39, 58, 110, 175, 267, 460. There is no noteworthy change in the other diseases. In eighteen of the nineteen cities of Massachusetts, with an estimated population of 863,750, there is no noteworthy change for the week, except the great increase in deaths from diarrhœal diseases.

The weather was generally reported as warm and steady, fine and clear; in Brooklyn there was a rapid rise in temperature at the close of the week, with marked increase of infant mortality. The meteorological record for the week in Boston was as follows: —

Date.	Barometer.	Thermometer.			Relative Humidity.				Direction of Wind.			Velocity of Wind.			State of Weather.[1]			Rainfall.	
	Mean.	Mean.	Maximum	Minimum.	7 A. M.	2 P. M.	9 P. M.	Mean.	7 A. M.	2 P. M.	9 P. M.	7 A. M.	2 P. M.	9 P. M.	7 A. M.	2 P. M.	9 P. M.	Duration.	Amount in Inches.
June 22	30.026	69	80	57	67	46	74	62	SW	W	SW	16	15	10	C	F	C	—	—
" 23	29.997	76	86	60	79	33	54	55	W	SW	W	11	12	1	C	F	C	—	—
" 24	30.194	71	76	67	55	66	73	65	N	SE	S	4	8	9	F	F	C	—	—
" 25	30.188	69	81	62	89	75	95	86	SW	NE	S	5	14	8	F	F	F	—	—
" 26	30.046	71	76	64	84	72	85	80	SW	SW	SW	11	18	8	F	F	C	—	.14
" 27	29.878	79	92	66	81	44	69	65	SW	SW	SW	8	15	9	C	F	F	—	—
" 28	29.705	78	90	69	72	50	90	71	SW	SW	W	10	20	15	F	F	R	—	.16
Week.	30.005	73	92	57				69	SW			1563 miles.						4.	.30

[1] O., cloudy; C., clear; F., fair; G., fog; H., hazy; S., smoky; R., rain; T., threatening.

For the week ending June 7th, in 149 German cities, with an estimated population of 7,523,192, the death-rate was 27.3, a decrease of 1.0 over the previous week, with a great increase from diarrhœal diseases, and decrease from acute diseases of the respiratory organs. Three thousand nine hundred and forty-six deaths were reported: 613 from consumption, 431 from acute diseases of the respiratory organs, 344 from diarrhœal diseases, 118 from diphtheria and croup, 52 from scarlet fever, 46 from typhoid fever, 44 from measles, 39 from whooping-cough, 23 from puerperal fever, five from typhus fever, one from small-pox (in Dantzic). The death-rates ranged from 13.9 in Metz to 45.3 in Königsberg; Dantzic 31.5; Breslau 34.0; Munich 44.3; Dresden 26.9; Cassel 18.4; Berlin 25.6; Leipsic 25.7; Hamburg 27.7; Hanover 19.7; Bremen 24.5; Cologne 26.4; Frankfort-on-the-Main 23.9; Strasburg 41.7; Darmstadt 26.3. Also for the same week, Vienna 36.2; Prague 48.4; Geneva 31.4; Basle 23.8; Paris 26.

For the week ending July 14th, in the 20 English cities and towns having an estimated population of 7,383,999, the death-rate was 19.7, the same as for the previous week. There was a considerable increase in the mortality from measles, and a slight rise from diseases of the respiratory organs. Diphtheria and whooping-cough show a considerable decrease. Small-pox and the other principal zymotic diseases remain about the same. Two thousand seven hundred and eighty-one deaths were reported: 264 from diseases of the respiratory organs, 127 from measles, 91 from scarlet fever, 81 from whooping-cough, 40 from diarrhœa, 34 from fever, 16 from diphtheria, eleven from small-pox (in London). The death-rates ranged from 11.8 in Hull to 29.8 in Newcastle-on-Tyne. London 19.5; Portsmouth 15.0; Plymouth 15.4; Bristol 12.9; Birmingham 18.1; Liverpool 22.8; Manchester 24.2; Leeds 19.4. In Edinburgh the death-rate was 22; in Glasgow 19; in Dublin 41 (small-pox, 12 deaths).

Cholera has appeared in Calcutta; fevers and small-pox continue to prevail in the great cities of India; small-pox, measles, and typhoid fever in Paris; small-pox and fevers in St. Petersburg; diphtheria in the northern German cities and Vienna; fevers in Italian cities; small-pox in Prague, Budapesth; and single deaths in several of the larger cities of Europe.

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THE Wisconsin State Medical Society has adopted the rule that the metric system shall be used hereafter in its printed transactions.

BOOKS AND PAMPHLETS RECEIVED. — Provisional Report of the Committee of the New York Neurological Society relative to the Subject of Insane Asylums.

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CASES OF STRANGULATED UMBILICAL HERNIA.

(WITH NOTES BY DR. R. M. HODGES.)

BY J. COLLINS WARREN, M. D.

Having seen three cases of this affection within about the space of a year, and as they are of comparatively rare occurrence, I have thought them of sufficient value to report particularly, as it gives me an opportunity to put upon record the very interesting notes of Dr. Hodges, collected several years ago. The cases given below seem to bear out the views therein expressed, for, although the hernia was reduced in one instance, success was undoubtedly due to the very early operative interference. In all these cases it will be noticed that the conditions were practically the same. They were all married women, probably multiparæ, beyond middle age, and accustomed to hard work. The hernial tumor in each case laid in a broad fold of integument extending across the abdomen, which was covered with a thick layer of adipose tissue. Two of these cases were treated at the Massachusetts General Hospital; a third was seen by me in consultation with Dr. E. J. Forster, of Charlestown.

Dr. E. J. Forster's Case. — On the 30th January, 1877, in the evening, I was called to E. D., a stout Irishwoman, fifty-five yearsof age, widow, the mother of several grown-up children.

Since her last confinement, several years previous, she had had a "pendulous belly." On examination a strangulated umbilical hernia was found, the tumor measuring six inches in the median line, and seven transversely. Taxis was tried unsuccessfully, until, with Dr. R. A. Blood's assistance, the patient was etherized, when the gut was easily returned. Morphia was given to insure quiet. The next morning the pulse was 108, the patient complaining of "soreness" over the umbilicus. Retching persisted since the first visit, to relieve which morphine and bismuth were given.

February 1st, eight A. M. Patient easy, and no vomiting since four A. M. Pulse 108; temperature 99.6°.

February 2d. No vomiting; pulse and temperature the same.

February 4th. The patient reported having had an operation from a dose of oil, taken the day before.

February 10th I was again called, and found the hernia had returned, appearances indicating that rupture of the intestine had probably taken place. The pulse was 132; temperature 102.1°. Dr. J. Collins Warren was called in consultation, aspiration being first tried without success; the sac was opened, and found to contain fæcal matter; the intestine sphacelated and ruptured. The sac was cleaned out, and a simple dressing applied. Twelve hours later the pulse had fallen to 114, and the patient comfortable.

February 11th, 11.30 A. M., the pulse was 90, temperature 98.8°, the patient having slept two hours. 6.30 P. M., pulse 102; temperature 101°. Bladder relieved by the catheter.

After this the patient was visited twice or more times daily, and the bladder emptied by the catheter.

February 22d. The patient requiring such constant attendance on account of the difficulty of micturition, Mr. Walter P. Bowers, a student of the Harvard Medical School, was placed in charge, from whose notes the subsequent history of the case is gathered. The diet consisted chiefly of eggs and milk. Olive-oil was administered to keep the fæces soft. The sloughing intestine gradually separated, and on March 5th the remaining portions were removed by Drs. Forster and Warren. It was estimated that about eight inches of intestine had been destroyed. The wound was dressed with charpie soaked in olive-oil, and the dressing was changed twice daily. On March 6th an injection given by the rectum came out at the artificial anus. No fæces had hitherto passed by the rectum except once, shortly after the operation, being probably a mass which had accumulated before the strangulation. Towards the end of the month the fæces began to pass by the rectum. The following is the record of January 8, 1878: —

Removed to Sweet Street. Appearance much better than when last seen; appetite good; is able to do housework and washing, but liable to attacks of pain, lasting a few hours, recurring as often as once a week, and which prevent her from working, and are very severe and prostrating. Able to digest all kinds of food except cabbage and beef soup. The fæces pass through rectum and the false anus: through the rectum every third or fourth day, and the discharge from the false anus varies in character, some days requiring attendance "twenty" times, other days only two or three. There are one or two small fistulæ about the orifice and false anus; the orifice has contracted, and is not very tender.

Dr. Warren's Cases. — I. The patient was a very fat Irishwoman, a widow, forty-four years of age. She had had a reducible umbilical hernia for about a year, and it has been gradually increasing in size. Two days before entering the hospital she had exerted herself unusually in the heat, and noticed that the tumor was larger, and had become painful. The record states that she had been taking opium for three days before her entrance, when the abdomen was found swollen and tender, and in a big fold of abdominal fat, in which was the umbilicus, was felt the hernia, about the size of a small cocoa-nut. It was firm and dull on percussion; there was an impulse on coughing; a portion of the skin covering it was discolored and sloughing. The pulse was feeble, and there was stercoraceous vomiting. Ether given. The tumor was first explored with an aspirator, and two ounces of serum were removed. The sac was then laid open, and about eight inches of small intestine, in good condition, but glued by recent adhesion to the sac wall, were detached and returned into the abdominal cavity. Although the patient rallied well, the symptoms of peritonitis developed themselves more fully, and the patient died the following evening at eight o'clock. At the autopsy a general peritonitis was found.

II. The patient, an Irish servant, fifty years old, a widow, of stout figure and pendulous belly, had suffered from an umbilical hernia, the size of an orange, for about one year. It occasionally disappeared. She was seized, the day before entering the hospital, with violent vomiting. Attempts at reduction by taxis had been tried without success. On examination there was found a hard mass the size of two fists in the umbilical region, to which the umbilicus was adherent at its lower border over a space about one inch in diameter. This spot was red and fluctuating. The pulse was strong, and temperature normal. The patient was placed in bed, and a cotton-wool pad was applied over the tumor. On the third day there was some vomiting of a yellowish but not fæcal matter; a poultice was applied to the hernia. On the fifth day the temperature had gone down to 95°. The face looked pinched, the skin was clammy, and the vomiting still continued; about an ounce of bloody serum was drawn off with an aspirator. More than this it had been decided from the beginning not to do, as the inflammation of the sac had become too far advanced to make it advisable to return its contents into the abdominal cavity. The symptoms did not ameliorate. The vomiting persisted, and became stercoraceous. The temperature on the fourth day went so low that it could not be taken by a thermometer registering 95° F.; hiccough set in, and the patient died on the sixth day. At the autopsy pus was found in the sac and in a portion of the adjacent cellular tissue; about four inches of the jejunum and some omentum were in a sloughing condition. There was no peritonitis. The intestines above the constriction were much distended with air.

Dr. John H. Mackie's Case. — Was called to Mrs. P. W., aged about seventy, a large, fleshy woman, weighing over two hundred pounds, in the summer of 1864. Found her with an umbilical hernia about the size of an infant's head. It had been strangulated twenty-four hours. Tried taxis ineffectually, and then operated (usual operation). Found a hernia of omentum and a single knuckle of intestine. I replaced the contents of the sac into the abdomen, and closed the wound with sutures and adhesive strips. A pad was placed over the rupture. The wound healed by first intention. She lived for several years, and never had any further trouble from the hernia.

Dr. F. A. Harris's Case. — The patient was an exceedingly fat woman, weighing nearly three hundred pounds. She said she had been subject to a protrusion from the umbilicus for some years, and some days before I saw her she had lifted a tub of water, and the hernia (which was undoubtedly only omental) had protruded, and did not return. She did not experience much inconvenience from it at first, and went about her work as usual, but at last, from tenderness and pain, was obliged to go to bed. Bowels had been constipated for three days before I saw her. The sac at that time was of the size of half an egg, and gangrenous. Pulse feeble and quick, but patient in good spirits, and not apprehending any danger. I called Dr. C. B. Porter, who, with Dr. Beach, very kindly saw the case with me on the same day. It was decided that operative interference was useless, and the treatment consisted simply in poultice, rest, stimulants, and quinine. Unfavorable prognosis. The patient, however, did not grow worse, but the mass sloughed off, the opening healed gradually, and patient was discharged very nearly well a short time before her commitment to the "Island," since which time I have not seen her, but know that she made complete recovery.

Dr. George Stedman's Case. — Was called in March, 1877, to see Mrs. M. F., aged forty-three, a very large, fleshy woman, weighing something over two hundred and twenty pounds. She had had an umbilical hernia for several years, which she had been accustomed to reduce whenever it came down. Found her lying upon her back, with a large poultice over the hernia, which was stated to have been down for twenty-four hours. She said she had reduced the hernia in this manner several times when unable to return it by taxis. Upon raising the poultice, there was discovered an umbilical hernia, covered and surrounded by reddened and indurated tissues. The induration was circular in shape, and of a diameter of about four inches. Taxis was found to be impracticable, and an incision was made in the median line. The hernial sac contained a knuckle of intestine very badly strangulated, and which ruptured when the pressure of the superimposed tissues was removed. There was also a piece of omentum, the size of a common watch, strangulated. The rent in the intestine was closed by the continued suture, and the intestine together with the omentum returned.

The patient lived about forty hours after the operation. The autopsy showed that there had been little or no attempt at reëstablishment of the circulation in intestine or omentum, there being a distinct line of demarkation at the point of constriction of the omentum. There was peritonitis.

REMARKS BY DR. HODGES.

Two cases of strangulated umbilical hernia have come under my care. One terminated fatally eight hours after operation; the other, not operated on, was followed by gangrene and an artificial anus, which finally healed.

How rarely this form of strangulated hernia occurs is shown by the fact that in the Massachusetts General Hospital, up to 1870, no case had ever been admitted. In 1861, 1862, 1863, only four cases were met with in all the hospitals of Paris.[1] How disastrously it results is equally shown by M. Huguier, who, with a personal experience of seven operations and seven deaths, states that in ten years no successful operation was performed in the Paris hospitals, and that in twenty-four cases of operation, collected from the experience of his colleagues, there were but three recoveries.[1]

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[1] Bulletin de la Société de Chirurgie, March 24, 1875.

The umbilical hernia of infancy (congenital umbilical hernia being very rare) tends naturally to a spontaneous cure. Persisting for a certain number of months or years, it grows smaller and smaller, and aided, at most, by the usual remedy of a bandage, finally ceases to protrude.

The umbilical hernia of adult life is quite another affair. The point at which the umbilical vessels pass through the abdominal parietes remains always a weak spot, and is rendered more so by a variety of causes, particularly by pregnancy. It is therefore most frequent in females (according to Malgaigne, in the proportion of one hundred and six females to eighty-six males; the London Truss Society's records show that in inguinal and crural herniæ five men are affected to one female), and in females who have borne several children, that is, in women thirty to forty years of age.

The umbilical hernia of adult life differs also from that of childhood, which is, as a rule, of intestine alone, by being in nearly all cases of omentum, or of omentum with intestine; an umbilical epiplocele is of rare occurrence. Its tendency also is to enlargement, not to diminution and disappearance, and to become adherent and irreducible.

The peculiarities which give to this form of hernia its danger are, —

(1.) The thinness of the coverings, no matter how great the depth of adipose tissue existing elsewhere on the abdominal parietes. The subtile scalpel of Thompson detected eighteen layers over some inguinal herniæ; but here the integument and a thin layer of connective tissue are all that intervenes between the abdominal cavity and the external world. Scarpa claimed to have demonstrated the existence of a sac, and though to the present day he is the great authority on this variety of hernia, later observers have denied his statement as a fact. Richet, in a most elaborate description, denies the existence of any anatomical layers, and expresses the opinion that anatomy cannot be brought to bear upon an operation for this as in other forms of hernia. Gradual distention of the peritonæum appears to obliterate its distinct continuity as one of the envelopes of the tumor. The manner of protrusion and the size of the rupture probably determine to a great degree the presence or absence of a sac.

(2.) The absence of fluid, with rare exceptions, in the cavity containing the hernia is another peculiarity of this rupture. In inguinal and crural herniæ the sac is, as it were, an appendix of the peritonæum, and readily holds the fluid which is characteristically present. The situation of the umbilicus makes it easy to understand why it should be absent in cases not strangulated. But, as a rule, it is equally absent in those where strangulation has been treated by an operation, and this fact becomes an additional argument against the existence of a peritoneal sac.

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[1] Bulletin de la Société de Chirurgie, 1861, Tome ii.

The two peculiarities just described explain why the protruded omentum and intestine so readily contract adhesions with the parietes of the cavity which they have distended, as it is so well established that they do, and why various accidental occurrences, and especially taxis, inflict injury more frequently than in any form of hernia. Size of the tumor consequently affects prognosis. The older the hernia the larger it is, and the larger the hernia the more likely is it to have adhesions.

It is generally conceded that no one point constitutes a common seat of strangulation. It is as likely to be within, or outside of, and away from, as at the sharp edge of the abdominal opening. Peritonitis often occasions the symptoms of strangulation as well as actual strangulation. The absence of anything approaching to a canal is an obvious cause of the severity of the constriction, — a severity which, in the opinion of most surgeons, leads to the production of gangrene at an earlier period than in any other hernia. Redness and doughiness of the cellular tissue authorize the suspicion of stercoral extravasation. Great danger threatens the moment that strangulation begins, and irreductibility previous to strangulation adds to the seriousness of these anticipations, rendering the return of the protruded parts unlikely after an operation, should one be performed.

The opinion has been expressed that more perish from the operation than escape. "I am opposed to all surgical interference in umbilical hernia, to taxis as well as operation. If expectant treatment gives twenty-five per cent. of mortality, active treatment gives ninety-eight per cent. Kelotomy counts for little, even should it not be estimated at absolutely nothing."[1] Verneuil, who makes this statement, supports the opinion by narrating three cases treated by leeches, poultices, etc., where the symptoms were such that the question of operation had been raised, and in which recovery followed; and Huguier records four cases, not operated upon, as giving four recoveries, either with or without artificial anus.[2]

It is claimed that an operation "without opening the sac" robs the procedure of its dangers.[3] Apart from the difficulty attending this course, owing to the thinness of the hernial coverings (the intestine has been laid open by the first incision) and the uncertain situation of the source of strangulation, the peculiar relation which the omentum assumes to the intestine in this variety of hernia, enveloping and concealing it in its centre, constituting what is called an "omental sac," and the early liability to perforation, render it inadvisable to operate without opening the cavity including the hernia. The omentum may conceal a perforated epiplocele, or one so nearly gangrenous as to render its return improper. This habit of concealing the intestine shows also that the removal of omentum by excision should never be practiced until it has been unfolded and examined. Rupture or dilatation of the constriction provoking the strangulation may also be better than incision.

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[1] Bulletin de la Société de Chirurgie, Tome i., No. 4, 1875.

[2] Bulletin de la Société de Chirurgie, 1861, Tome ii.

[3] Colles, eight operations, six recoveries, Dublin Quarterly, 1861, vol. xxxii. page 293.

In any operation performed it is desirable to exclude from the peritoneal cavity blood and other fluids which might drain directly into it by reason of position. To obviate this contingency, Demarquay passed a circular thread around the base of the hernia subcutaneously, and, though a fatal result followed, the plan merits remembrance. The superfluous integument has been cut away, and the edges of the wound sutured together (Hutin, Heath). This also may be a useful step, for the almost universal result of a successful operation for an umbilical hernia is its radical cure, a result which rarely follows operation in the other forms of this affection. It is also alleged that when artificial anus follows, either spontaneously or after an operation, recovery is more probable than if this occurrence does not take place. Beyond the natural inference that such an allegation would be true, I am not able to advance any facts in support of the statement, save the single one instanced at the outset of these remarks.

In view of all that has been said in regard to this formidable accident, it is hardly possible not to subscribe to the following conclusion of M. Huguier: —

"In strangulated umbilical hernia, whether intestinal or omento-intestinal, it is *perhaps* better to abandon the hernia to the efforts of nature, watching and combating complications, than to attempt a regular operation of kelotomy" (*que de pratiquer l'opération de la kélotomie complète*).

A CASE OF CHRONIC CATARRHAL PNEUMONIA.[1]

BY WALTER PRENTICE BOWERS.

Of the disorders spoken of which might give rise to these symptoms the following can be considered as unlikely: asthma, emphysema, bronchiectasis, abscess, gangrene, cancer, pleurisy, cardiac diseases, and aneurisms, — while catarrhal pneumonia and both forms of bronchitis remain very probable as conditions which may explain the symptoms presented above. The reasons for excluding the improbable diseases are as follows: Asthma, because the cough, which is the most valuable of our signs, does not present the characteristics of the cough connected with asthma in that it bears no relation to any attack of dyspnœa, does not come on in paroxysms, is not attended with the thin, frothy expectoration as in asthma, but with a heavy, thick, yellowish sputa; because the dyspnœa is not that of asthma, for it is not paroxysmal nor marked, but is a result of exertion only, and the history of the advent of asthma seldom gives an attack of hæmoptysis as its earliest symptom. Emphysema, because if of sufficient extent to produce all of these symptoms it would necessarily bring to notice others, such as obstruction to the circulation, difficulty in the expulsion of air more than a quickened respiration, and more marked dyspnœa. The age of the patient is also against it, for it is more often seen later in life, but the strongest argument for its exclusion is that the symptoms are much better explained in other ways. Bronchiectasis, because the cough does not occur in paroxysms between which there are intervals of comparative freedom from the cough, and there is no copious expectoration after a fit of coughing. It is really from the character of the symptoms, then, that this is excluded, and not from the absence of symptoms which might be noticed in bronchiectasis. Abscess and gangrene, from the absence of characteristic expectoration and the constitutional indications, such as fever or chills, or both; and in the case of gangrene, especially, from the absence of characteristic odor. Cancer, from the absence of pain, the very slow progress of the disease under consideration, the age of the patient, — for it is rare to find it at this time of life, — and the absence also of cancer elsewhere. Pleurisy, because the cough is not the slight, hacking cough of pleurisy, with the frothy, serous expectoration, if there be any; because of the very little dyspnœa, for a pleurisy which had been steadily progressing for so long a time would have presented more marked evidences in the greater prominence of symptoms characteristic of it, and there has been no pain at any time. Cardiac diseases, because the cough and expectoration both seem better explained on other grounds, and absence of marked dyspnœa on exertion, palpitation, or any evidence of obstruction to the circulation. Aneurisms, by the absence of pain, pulsations, marked dyspnœa, disturbance of the circulation, or indications of pressure on any structures, but principally because the symptoms are not at all characteristic of these affections, but are of another.

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[1] Concluded from page 51.

Bronchitis and capillary bronchitis cannot be excluded; because the former, when there is cough and expectoration of this character, must exist, but it can hardly be employed to explain all the symptoms in this case, for the constitutional manifestations are out of proportion to the evidences of bronchitis. The acute general capillary bronchitis is not referred to, for that is an acute disease, and is accompanied by marked symptoms not present here, such as dyspnœa coming on suddenly, fever, and evidences of obstructed circulation; but a capillary bronchitis occurring in limited parts of the lung cannot be eliminated, for it manifests itself by few symptoms which would be at all characteristic in the rational signs, and as a precursor or concomitant of catarrhal pneumonia it very likely exists; and if present it is probably one of the many processes which are all included in the term catarrhal pneumonia.

Chronic catarrhal pneumonia is, from the history presented, immediately thought of, and there is not a single symptom which, either in itself or its manner of appearance, would tend to render it improbable; on the contrary, the family and personal history all point to this trouble, as is seen in the death of the patient's parents from consumption, his own hæmoptysis, cough with expectoration, progressive loss of flesh and strengh, all of which may be looked for in catarrhal pneumonia, and the physical examination will be made with the expectation of finding evidence to confirm a probable diagnosis made on such grounds.

The physical examination, made in November, at the same time that the history was obtained, is as follows: Inspection showed a young man of ordinary size and development, rather pale, with cheeks flushed. The chest was apparently normal. Palpation gave evidence of tolerably firm tissues, with nothing abnormal. Percussion of the chest gave higher pitch all over the left lung, amounting to dullness at the base behind under the angle of the scapula, and under the clavicle in front. Auscultation: the respiratory murmur was diminished throughout the left lung, but seemed exaggerated over the right, probably only by comparison with the left. Sonorous and sibilant râles were occasionally heard on the right. On cough, with the stethoscope over the left chest, moderately fine, moist râles were heard all over the lung, more marked at the base behind. These were heard only on cough, and no fine ones in the right lung were detected. Vocal resonance was slightly increased, especially just under the clavicle and beneath the angle of the scapula. The pulse was 90, full and regular; the temperature 97.8° F.; the respirations 26 per minute. Since then the average of the pulse beats per minute, taken at various times, has been 84. Respirations have averaged 26 per minute; the temperature 97.2° F.; the highest at any time being 98.8° F., the lowest 95.4° F. These observations were made at various parts of the day, and there seemed to be little effect on the temperature, whether taken early or late. The physical examinations made at intervals since then have shown that the dullness is increasing in intensity; râles are more abundant and of the same character, being now heard also at the right apex.

Of these symptoms obtained from the physical examination, the emaciation, quickened pulse, and flushed cheeks play the same part and stand in the same relation to the physical signs that loss of flesh and strength do to the rational, namely, as showing the effect of the disease on the general system; and they are to be borne in mind in the prognosis rather than in the diagnosis, for they have no definite signification. The persistence of the temperature below the normal standard is a subject on which almost all writers are silent, no explanation being offered for it, and its existence was mentioned by Da Costa as occurring only in certain rare cases. Great care was used to insure accuracy in regard to this. Quickened respiration is to be looked upon as showing the demands made by the system for more oxygen, and as due either to a loss of ability to furnish air or to a greater need of the system for it; and since there are none of the causes for the latter supposition, as shown by the absence of fever, the respiratory system is to be regarded as defective and unable to supply air enough, so that the number of respirations is increased to make up the deficiency. This symptom, then, supports the conclusion arrived at from a consideration of the rational signs, that we have a disease which has for its result an impairment of the respiratory function.

Diminution of the respiratory murmur indicates some condition which prevents the free circulation of air through the lung, which may be brought about by the presence of some adventitious substance.

Higher pitch or dullness over the chest only shows that there is less air under the pleximeter than normally is there, so that we must look to other signs to show where this want of air exists, whether in the lung or between it and the chest wall. The uniformity of the dullness leads almost to the presupposition that it is due to some condition in the lung, for if caused by any substance outside of the lung, more marked dullness or flatness would probably be found, and that, too, with distinct boundaries, but auscultation will settle the matter conclusively. This has shown that air passes, beneath the ear, all through the chest; hence the condition giving rise to the dullness is presumed to be in the pulmonary structures, for the modification of the murmur and the râles show that the passage of air is not entirely free from obstruction.

The mechanism of the production of the râles is due to the admixture of air with the fluid or semi-solid contents of the tubes, and the bursting of such bubbles gives rise to the sounds heard; or, in the case of the coarse râles, the calibre of the tubes being obstructed, the air is set into peculiar vibrations, and the abnormal sounds are thus produced. Hence an explanation of the dullness is found in the presence of this fluid in the alveoli as well as in the bronchial tubes, displacing an amount of air equal to its own bulk. These conditions all strengthen the conclusions arrived at from the rational signs.

Bronchitis could not be disposed of then, and now must be considered as a factor in the case, for there is no evidence of diseases of such a nature as could mechanically produce this abnormal fluid in the air-passages; therefore some condition must exist to account for it, which is readily and fully explained by the catarrhal inflammation of the bronchial mucous membrane causing the production of this fluid. But there are many features in the case which cannot be explained by the bronchitis, inasmuch as we have dullness on percussion and constitutional symptoms not usually seen in this affection, so that the other probable disease — catarrhal pneumonia — is brought in more fully to explain the symptoms, which it does completely.

Condensing the whole case into a few words, it is seen that a young man eighteen years old has a hæmorrhage from the air-passages, which is followed by cough, expectoration, loss of flesh and strength, and conditions in the chest giving rise to obstructed respiration because of the fluid collected in the air-passages; in short, a state exactly corresponding in all essential points to the chronic catarrhal pneumonia, which is a process supposed to be set up by a catarrhal inflammation of the bronchial mucous membrane, which gradually invaded the smaller tubes, filling them with fluid and cells, the result of this inflammation, which, accumulating more and more, finally fill even the alveoli of the lung, thus setting up an analogous process there, whereby they become so crowded with cellular elements that the nutrition of the alveolar walls is interfered with, and they are unable to resist the encroachments of the decomposition or degeneration set up in the retained products of inflammation, and are in turn broken down and destroyed, an inflammatory condition meanwhile being also set up in all the pulmonary structures in the neighborhood, with varying results. This process, once started, is apt to extend in just the same way by a continuation of the catarrhal inflammation.

The ætiology in this particular case seems to be plain. The family history shows that both parents died of consumption, and the reports of the State Board of Health for 1873 indicate that the coexistence of this disease in the offspring of parents afflicted with it occurs sufficiently often and with such regularity that this can be regarded certainly as a predisposing if not a direct cause. This, combined with rather poor hygienic surroundings and evidences of carelessness on the part of the patient, tends to make the case clear. The influence which the hæmorrhage may have had in setting up this process is doubtful, although Niemeyer strongly urges that retained blood may act as an irritant, and thus be a cause for the commencement of the disease. Yet since hæmoptysis, in persons suffering from diseases implying obstruction to the circulation resulting from affections of other organs than the lungs, rarely produces such inflammation, and when it does it is of the croupous variety, this cannot play so important a part, it would seem, as has been supposed, if the theory of catarrhal pneumonia be rigidly adhered to. But if it should be proven that the disease now called catarrhal pneumonia comprises several processes which can be distinguished clinically and pathologically, as claimed by many prominent men, among whom is Dr. Clark, then the theory that retained blood may set up this process will be tenable. One set of cases in Dr. Clark's classification certainly corresponds closely to the one under consideration; but although he states this form of disease to be a true catarrhal pneumonia, yet its starting-point is in the inflammation caused by retained and imperfectly absorbed products of a croupous pneumonia, and hence usually starts at the base, quickly invading the apices of both lungs. This case was not seen early enough to make it possible to affirm positively that it started at the base, but the evidence that the process existed all through the left lung, subsequently attacking the right, and the fact that at the first examination the base seemed to show greater evidences of disease than the upper part, certainly leave room for the supposition. There was no history of a croupous pneumonia which might furnish a basis for the origin of the catarrhal inflammation, but it is possible that a limited croupous pneumonia might have been set up by the retained blood at the time of the hæmoptysis, and a catarrhal inflammation supervened upon that; otherwise the hæmorrhage cannot be considered as a cause, but only one symptom among many indicative of a morbid process in the lung. This was introduced only to show how the hæmorrhage *may* have been a factor in setting up this process in a lung already predisposed to it. But the ætiology seems sufficiently clear without any supposition of this kind, only there is an absence of anything to show why the disease should have made its appearance just then without assignable cause.

Prognosis. As to the present it must be guarded, but as a whole of course it is bad; for it is only when the disease is limited that there can be any hope of arresting it, and there are such evidences of extensive inflammation of this character, as indicated by the râles and dullness, that such a thing is out of the question. But since the patient has been sick over a year, and seems to be improving under treatment, and there is no evidence now to indicate that the process will take on a more rapid form, it would be difficult to give more than an approximate estimate of the length to which his life may be prolonged. Two years or a little over is the estimate which the reader makes. The patient intends to take a trip to Labrador in the spring on a fishing vessel, and the condition of his health on his return will materially modify the prognosis, for such an experiment in some cases seems to be very beneficial.

ACUTE SCIATICA AND FACIAL NEURALGIA; TREATMENT BY SALICYLIC ACID AND SALICYLATE OF SODA.

BY S. L. ABBOT, M. D.

Acute Sciatica. — Case I. On the afternoon of April 18, 1878, I was called to a robust, vigorous gentleman of middle age, who was suffering from a severe attack of sciatica. Being passionately fond of boating and shooting, he had exposed himself much during the previous winter and up to this date in an open boat off the sea-coast. He had had, in the course of his life, repeated attacks of acute rheumatism, and one of sciatica during the previous November, for which he was treated by a physician who had since left the city. I found the patient in bed, suffering from very severe sciatica on the left side. The pain was so intense that the slightest movement was agonizing, and was referred principally to the middle of the left buttock, but was felt at points along the whole course of the sciatic nerve and its principal branches. A subcutaneous injection of a sixth of a grain of sulphate of morphia was given, and was followed by repeated doses of morphia, with chloral and bromide of potass, during the following night.

On the 19th the patient reported that he had had a night of broken sleep, and he was still suffering quite severely, but perhaps a little less than on the previous evening. Taking into account the rheumatic diathesis of the patient, although the case was clearly one of sciatica, pure and simple, salicylic acid was prescribed in eight-grain doses, dissolved in liquid acetate of ammonia, to be repeated every two hours. At six P. M. the patient was entirely free from pain, and kicked his left leg about with the greatest freedom in demonstration thereof, at the same time expressing his great astonishment at the relief which he had obtained.

April 20th. A few minutes after last evening's visit the patient rose and walked without pain to the water-closet adjoining his room, but was no sooner seated than the flexure of and pressure on the nerve in this position brought back the pain in all its original intensity, and it was with great difficulty that he got back to bed. He passed a bad night, although he took anodynes very freely. He was now much discouraged, feeling that the salicylic-acid treatment was a failure, although he had taken none of the drug during the night. He was advised, however, to increase the dose to twelve grains, to be taken every two hours. A subcutaneous injection of morphia was given at once to relieve the urgent pain.

The following night the patient was kept pretty comfortable, by taking three doses of the acid, and chloral and morphia in addition. Thinking it probable that the failure to get the relief which was obtained the first day might be merely the result of an insufficient dose, I advised him on the 22d to take twelve grains every hour until his solution was exhausted, and then to take sixteen-grain doses of salicylate of soda every hour through the day.

At six P. M. the patient reported that he had had a very comfortable day, and was entirely free from pain. He had taken three doses of the acid and three of the salicylate of soda.

April 23d. The patient has slept well, waking occasionally for a few minutes; has taken no medicine since six P. M. yesterday. Has a slight "grumbling" pain at present. Has had a little tinnitus aurium. On this day he was able to use the water-closet without pain. From this time onward the pain was held in complete check by the salicylate of soda. The dose was increased or diminished as the occasion required, never being larger than sixteen grains. As its extreme sweetness became rather nauseous, and the patient was free from pain, its use was suspended for the greater part of a day, but the return of severe pain compelled a resumption of the remedy.

Sulphate of cinchonidia was given freely during convalescence, and was followed by Blancard's pills, of which the patient took in all a hundred.

During the attack the pain shifted its seat, as is usual in sciatica, at times being most urgent in the back of the thigh, at others in the popliteal space and below the outer ankle. He usually took no medicine at night, and short returns of pain at that time were relieved by the application of hot water in a rubber bottle. His appetite was good during the whole attack, and he ate meat at breakfast and dinner daily. The thermometer showed no fever at any time. The pulse was sometimes a little excited, ranging from 96 as high as 120 on one occasion, probably owing to temporary mental excitement. The patient was able to return to his business on the nineteenth day, having been about the house for nearly a week previous.

Soon after attending this case the valuable paper of M. Fernet, published in the number of the *Archives générales de Médecine* for April, 1878, came to my notice, and my experience seems to be fully in accord with the position maintained by him. The object of his paper is to prove that acute sciatica is a true neuritis, a genuine inflammation of the sciatic nerve. He sustains this position most ably, both by clinical and post-mortem observations.

CASE II. In July I had a second case of acute sciatica, in a lady. In this there was no history of previous rheumatism. The attack was very severe. No opiate was given, but salicylate of soda was administered, with the same speedy relief as in the first case. The dose then being omitted, the pain returned, and, as in that, soon disappeared on the patient's resuming the medicine. At the end of a week the patient was entirely well, a feeling of weakness in the leg, with a sensation of numbness in the course of the sciatic nerve, being the only reminder of her great suffering.

CASE III. A third case was that of a middle-aged unmarried lady, who consulted me in December last. She was in a condition of great debility, with loss of appetite and various symptoms, among others a pain on stooping, referred to the right sacro-iliac joint. She said she had recently passed through a "slow fever." Gradual improvement resulted from a tonic and anti-spasmodic course of treatment, but at the end of two weeks an attack of sciatica came on, the pain being somewhat intermittent, and following the nerve and its branches as far as the ankle. On inquiry it was learned that the patient had had acute rheumatism several years before, lasting ten days. I therefore prescribed at once salicylate of soda in the dose of twelve grains every three hours. On the next day the patient reported herself as entirely free from pain. The dose was reduced one half, to be gradually relinquished if relief continued, or increased if the pain returned. At the end of a week she said there had been hardly a trace of the pain since she began to take the salicylate of soda; she complained, however, somewhat of weakness, and pills of the iodide of iron were given.

Acute Facial Neuralgia. — CASE I. December 24, 1878. Mrs. S., a thin, middle-aged married woman, of marked nervous temperament, consulted me for an acute neuralgia of the trifacial nerve of the left side, from which she had been suffering for a fortnight. The pain was referred to the left temple, the supraorbital and orbital region, and the left ear. It was intermittent, coming on daily at noon, and continuing with great severity until about six P. M., from which time it gradually diminished until morning, when it was very slight, having disturbed sleep more or less throughout the night.

On the 25th, six grains of cinchonidia in the morning and three at noon did not avert an attack of the most intense severity at the usual time; it was, however, several hours shorter than usual, three doses of fluid extract of guarana having been taken at intervals of an hour each during its continuance. The next day at noon the pain returned without mitigation, and the patient took at once sixteen grains of salicylate of soda, which had been prescribed in case of its recurrence. The pain ceased almost immediately. She took, however, a second dose two hours after. This was followed by so much nausea and general discomfort that she reduced the dose to four grains, which she took at intervals of two hours until the evening. She fell asleep at seven P. M., and slept twelve hours. There was no subsequent return of pain. Some soreness remained about the orbit, and the small dose was continued for a day or two at gradually increasing intervals. The patient's strength was subsequently recruited by a tonic course.

CASE II. October 26, 1878. Mrs. G., a middle-aged lady, mother of three children, of good *embonpoint*, but of rather nervous temperament, had suffered for three successive nights from acute neuralgia of the left temporal and orbital regions, almost entirely preventing sleep. During the day soreness remained in the affected region, which gave way to intense pain at night-fall. She was advised to take twelve grains of salicylate of soda when the pain came on, and repeat the dose at intervals of three hours if necessary. The pain was greatly relieved by the first dose, and so much so after the second that she had a good night's rest. A subsequent attack was averted by taking the medicine on the first intimation of a return. The patient had never had rheumatism, but attributed the attack to "taking cold."

Case III. April 3d, P. M. Mrs. F. S., a middle-aged married lady, with one child, was severely attacked with neuralgia of the left temple and eye, the nose being much obstructed by an acute catarrh. The pain was intense. She was advised to take ten grains of salicylate of soda, and repeat the dose every two hours until relieved. At the end of half an hour after the first dose she fell asleep, but awoke in time to take the second, being then almost entirely free from pain. She got up from her bed and went down-stairs and ate a hearty dinner at six, went to bed, and slept almost continuously from eight o'clock until half past seven the following morning. She was then entirely well, the nasal congestion and the coryza having completely disappeared with the neuralgia, which did not return.

These cases seem to show that we have in salicylic acid and its compounds as valuable a remedy in acute neuralgia as in acute rheumatism. Perhaps they indicate a closer affinity between these diseases than has been generally suspected. Two of the patients had had attacks of rheumatism. The cases, with the exception of the third case of sciatica, were all severe, and nothing could be more satisfactory than the very prompt and efficient relief which followed the exhibition of the remedy. In cases of a more chronic character my experience as yet does not justify me in expecting such complete relief by these remedies alone. A limited experience seems to show that such patients do not tolerate them so well, perhaps on account of the debility which is so marked a feature in these cases.

RECENT PROGRESS IN THE TREATMENT OF CHILDREN'S DISEASES.

BY D. H. HAYDEN, M. D.

On the Use of Benzoate of Soda in Diphtheria. — Dr. Ludwig Letzerich.[1] The author's studies of the above remedy in diphtheria were instigated by the experiments carried out by Graham in the laboratory of Professor Klebs, in Prague. The cases subjected to treatment, in addition to numerous sporadic ones, embraced twenty-seven, which came under his care during an epidemic of the disease in Berlin. Of these, three were adults, and the remaining twenty-four children; and eight were severe cases, with extensive local affections and dangerous general symptoms. None had been subjected to any other treatment, whether local or internal. There was a fatal result in only one case, a child, who had been much run down in health before the attack, who was badly nourished, and who had a disposition to trouble of the respiratory organs. Of the eight severe cases three were boys and five girls, and their ages were between five and eight and a half years. In all these cases there were high fever, delirium, retention of urine and of fæces, existing often before the extensive local affection had made its appearance. In the blood there were found numerous bacteria and plasma corpuscles (*Plasmakugeln*), from which, by cultivation in veal broth, very large colonies of micrococci became developed.[1] This development, in the chambers for cultivating the micrococci (*Kulturkammern*), at a temperature of 86° to 95° F., was completed in a few of the cases before the extensive exudations upon the tonsils and pharynx had made their appearance, — a proof that the general infection often takes place a long time before the localization of the disease makes its appearance. This is particularly well illustrated in typhoid fever.

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[1] Berliner klinische Wochenschrift, February 17, 1879.

What is the action of benzoate of soda in diphtheria? It has been shown, the author alleges, by the experiments of Graham, that certain quantities of this remedy, when introduced into the system of an animal infected, will in a certain time put a stop to the "vegetation of the diphtheritic poison," the amount necessary for this purpose being determined by the weight of the body. In this manner, accordingly, the dose for children and adults is regulated, and it is claimed by him that, up to the present time, there is no other remedy that exercises so rapid, continuous, and therapeutic an effect upon the development and course of the diphtheritic process as benzoate of soda. His formula for infants under one year old is, —

℞	Sodæ benzoat. pur. . .	5.0	or	Sodæ benzoat. pur. . .	ʒi.
	Aquæ destillat.,			Aquæ destillat.,	
	Aquæ menth. ppt. .	āā 40.0		Aquæ menth. ppt. . .	āā ℥i.
	Symp. cort. aurantii .	10.		Symp. cort. aurantii . .	ʒij. M.

S. One half tablespoonful every hour.

The dose for children between one year and three years of age is given as seven to eight grammes (two drachms) dissolved in three and one half ounces of the vehicle, the whole amount being given in the couser of the day in half to one tablespoonful doses. For children between three and seven years of age eight to ten grammes (two to two and one half drachms) are given in the same way. Those over seven years old take ten to fifteen grammes (two and one half to four drachms), and for adults the dose is fifteen to twenty-five grammes (two and one half to six drachms) daily in four and one half ounces of the vehicle.

An unpleasant after-effect of the medicine has never been observed, not even in young infants.

The diphtheritic membrane was treated with benzoate of soda in powder, being sprinkled on or applied through a glass tube or quill.

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[1] Vide Archiv für experimentale Pathologie und Pharmakologie, von Klebs, Schmiedeberg, und Naunyn, Band ix., Heft 3 und 4.

There is no slough formed, and thereby the danger is averted of its acting as a firm covering under which an energetic development and growth of the organisms can take place.

The insufflation was made every three hours in severe cases; in the milder forms two or three times daily. With older children a simple solution of the salt (ten to two hundred) was used as a gargle.

The author cites the following case as a typical illustration of the way the medicine acts upon the general infection, the effects being quite uniformly noticed after twenty-four to thirty-six hours: —

W. L., eight years old. Treatment began on June 19, 1878, the second day of the disease: —

June 19th,	evening,	106.3° Fahr.	pulse 136
" 20th,	evening,	102.2° "	" 124
" 21st,	morning,	101.6° "	" 114
" "	evening,	100.4° "	" 112
" 22d,	morning,	99.5° "	" 104
" "	evening,	98.6° "	" 104
" 23d,		normal	normal

In the above case the membrane on tonsils was very extensive, and was powdered. On the second day of the disease it became circumscribed, thinner, and somewhat more transparent, and on the fifth had nearly disappeared. The medicine was continued a few days after this date, but at longer intervals, and the small exudation spots were powdered twice daily, until the last remaining portion had completely disappeared on the eighth day of the disease.

The records of many other children, equally severely affected, and of different ages, gave nearly the same results as the above, and the effects of the medicine were always the same. The author recommends this remedy highly in gastric and intestinal catarrh, particularly of infants, and states that at times the results are surprising in these latter cases. He recommends it likewise in (*Mycotischen*) catarrh of the bladder, and firmly believes in the statement of Klebs (to whom we are indebted for the employment of benzoate of soda) that it is to be recommended in all diseases which originate by infection.

Treatment of Whooping-Cough with Inhalations of Carbolic Acid. — Birch-Hirschfeld (Dresden).[1] The author communicated the successful results of treatment of whooping-cough by inhalations of carbolic acid at the fiftieth meeting of German naturalists and physicians at Munich, in the section for children's diseases. This treatment was instituted by him first during an epidemic of the disease in the Blind Asylum at Dresden, in 1877. The method employed by him differed from that reported by Thorner, the patients, namely, being confined in a room (otherwise well ventilated) in which, by means of a spray apparatus, the air was kept continually impregnated with a twenty per cent. solution of carbolic acid. When the weather was fine the patients were allowed to be in the open air for one hour. Ten children were treated in this manner at the same time, and in none of the cases were there any symptoms of carbolic acid poisoning, all feeling perfectly well during their stay in this atmosphere.

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[1] Deutsches Archiv für klinische Medicin, xxii. Band, 5 and 6 Heft, 1878. Wiener medicinische Presse, January 12, 1879.

The results of treatment in these cases correspond exactly with those obtained by Thorner. In the first two or three days no diminution in the number or severity of the paroxysms was experienced (on which account in private practice a further continuance of the method is often not persevered in); after this there followed invariably an improvement, even in very severe cases, the paroxysms becoming less frequent and milder, and at the end of the first week of treatment the stadium convulsivum could be considered as terminated. It was only in a few cases, which did not come under treatment at the beginning, that this stadium lasted into the second week. It was very noticeable, on the fourth day of the epidemic in the asylum, when the use of the spray was omitted, that with all the patients the paroxysms became more violent and much increased in frequency. If one were inclined to attribute the mild character assumed by the disease in this epidemic to peculiar circumstances, for instance, if it were asserted that the children were between ten and twelve years of age, and that whooping-cough often runs a mild course in such cases, he would state in reply that since then equally good results have been obtained by this method in other cases and in younger children (the youngest being one year old). Up to the present time eighteen cases have been thus treated by him, and they all confirm what has been said above. In one case, where at the same time two children, aged respectively one year and two years, were treated, they were allowed to sleep at night in a room where the carbolic acid was not used, and the duration of the stadium convulsivum, which at the beginning had been very violent, was only nine and eleven days notwithstanding.

The great aversion to the smell of carbolic acid in some patients will make it often impossible to carry out this treatment thoroughly, on which account the author has made endeavors to find another remedy less objectionable in this respect. According to his experience, salicylic acid does not seem calculated to supply the place. Benzoic acid, whose antiseptic properties have of late been highly spoken of, would be worth experimenting with. As long ago as 1835 Dr. Dohrn, of Heide, reported the remarkably mild course of whooping-cough treated with fumigations of a mixture of olibanum and benzoin. The efficiency of this remedy, if there exist any, was probably due to the benzoin.

Meningitis Tuberculosa.[1] — Professor Henoch, in a paper upon this subject, read before the Berlin Medical Society at their meeting held November 6, 1878, alluded to the rapid and high increase of temperature during the last twenty-four to thirty-six hours preceding death as very characteristic phenomenon in this disease. In nineteen cases observed by him (ten of which were complicated with cerebral tubercle) this symptom was absent only three times. Whereas, during the whole course of the disease, the fever continues moderate, and the evening temperature rarely passes 101.3° Fahr., at the final termination it rapidly rises to 104° to 105.8° Fahr., and even higher, remaining so until death, at that moment falling a little. Dr. Henoch has made no investigations as to the changes which take place after death in this respect.

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[1] Berliner klinische Wochenschrift, January 6, 1879.

What is the cause of this symptom? It is not the question of a sudden increase of fever. Nor can the explanation be found in any supervening complications with diseases of the respiratory organs (bronchitis, pneumonia, pulmonary œdema), upon which Westphaler lays stress as the cause of the rapid increase of temperature in epileptic and apoplectic attacks of persons affected with paralysis. The author's experience is entirely at variance with any such explanation. Finally, the cause cannot be sought for in the convulsions, inasmuch as in some of Henoch's cases the elevation of temperature took place in the absence of them, whilst in others, in spite of violent convulsions, this symptom was not present.

After giving the results of experimental pathology, and comparing these with clinical facts, Professor Henoch arrives at the conclusion that this symptom is due to a paralysis of the centre controlling the warmth of the body. This preagonal and agonal elevation of temperature has been met with by him almost exclusively in the tubercular meningitis of children. It is only observed in adults under circumstances which bring with it a paralysis of the cerebral functions. It is important to distinguish this rapid rise of temperature from that which takes place gradually in various febrile diseases. This latter is by no means uncommon, whereas the former is met with only under the circumstances related above.

Other symptoms which make their appearance towards the end of tubercular meningitis go to support this view of a paralysis of the warmth-regulating centre: for instance, the paralysis of the vagus nerve (small pulse, 180 to 200 per minute), paralysis of the vaso-motor nerves, as evidenced by the dusky redness of the face, and by the changes of coloration of the skin (erythema annulare in one case). The profuse sweating would seem, by the experiments of Adamkiewicz, to be the result of an irritation of the centre of the "sweat fibres," situated in the medulla oblongata, due to the accumulation of carbonic acid in the blood (caused by paresis of the heart and stagnation in the lungs).

That the thermic changes in the last stage are not constant should not surprise us. The body is not a constantly working physical machine. We know just as little why vomiting at the beginning of the disease and convulsions at the end of meningitis are absent in a certain number of cases.

(*To be concluded.*)

NEW HAMPSHIRE STATE MEDICAL SOCIETY.

The eighty-ninth annual meeting of this society was held in Union Hall, Concord, on Tuesday, June 17th, and the following day, and was well attended, there being one hundred and twenty-five members present.

The president, Dr. Alonzo F. Carr, of Goffstown, presided. The session was opened with prayer by the Rev. A. C. Hardy, of Concord, after which the usual committees were appointed by the chair. The report of the council was read by the secretary, showing that twenty-seven physicians had been licensed since the last annual meeting, under the law regulating the practice of medicine and surgery, and that there were twenty-five applications to become members of the society. All the applicants who were present were admitted on ballot, and took part in the exercises of the meeting. Delegates were present from Vermont and Massachusetts.

The president, Dr. Carr, delivered the address, which was retrospective as to the history of medical science in New Hampshire, its subservience to quackery in olden times, and congratulatory because of the great advancement it had made, the growth of popular appreciation of its value, and the reliance to be placed upon it. While no disparagement was cast upon physicians of half a century ago, many of whom were highly educated and in advance of their time, the causes which induce disease, as well as its natural history and symptoms, had, in more recent years, commanded deep research, and the result had been notable progress; the diagnosis of what was wont to be obscure was now made easily recognizable.

Important movements had been made by state governments, and valuable data had been elicited through reports of state boards of health on hygiene, ætiology, climatology, epidemics, and drainage. The necessity of establishing a state board of health was strongly urged, the experience of even one disease — diphtheria — being alone a strong inducement for the creation of such a body. No plea of expense should hinder the selection of health officers, whose duty it would be to seek for the cause of epidemic disease, and to suggest the best manner to meet and overcome its direful influence. New Hampshire is regarded as a very healthy State, but as the population crowds into the larger cities and towns, sanitary regulations must be more strictly observed, else, sooner or later, epidemic influences will be developed, and an increased mortality will show the results of inattention to hygienic measures. Dr. Carr was of the opinion that New Hampshire would erelong come into a line with Massachusetts, Rhode Island, and Connecticut.

In continuation of his address, the president gave a very interesting dissertation on The Treatment of Fracture of the Lower End of the Radius, which was illustrated by drawings and splints. It would be impossible to give any intelligent abstract of this paper in this report without taking too much space. Suffice it to say it was listened to with much interest by the society, and it is well understood that the reader several years since gave to the profession a valuable appliance for the treatment of Colles's fracture known as Carr's splint.

Dr. Charles C. Odlin, of Exeter, at the request of the society, gave a graphic account of a case of rabies which he was attending. The patient was a young man of twenty, who had been bitten by a cat a year ago, and who has died since the meeting. Dr. Odlin will report the case in full at the next annual meeting.

Dr. Odlin then read the annual oration, his subject being the Country Doctor, and the duties, disabilities, responsibilities, discouragements, and special exposure to criticism and censure of that hard-worked individual were graphically and humorously described.

Dr. Twitchell, of Keene, read an elaborate essay on Medical Ethics, in which he took the ground that to practice according to the letter and spirit of the code was simply to be professional gentlemen, and "do unto others as ye would they should do unto you." He drew upon his professional experience to show how the consulting physician by word or deed often undermined the attending physician, and denounced in strong terms the wrong such a principle brought about. He further characterized as unworthy of the conduct of a gentleman and a physician the thoughtless custom of having one's name brought into notoriety in our daily papers, or of appending names to the certificate of designing parties who are seeking to sell mineral spring water or some special article of medicine.

The Annual Dinner. — The society, with its invited guests, including Governor Head, Mayor Brown, of Concord, and others, sat down to dinner at the Eagle Hotel at half past two, Tuesday, Dr. Stillings, of Concord, presiding as anniversary chairman. Interesting post-prandial speeches by the governor, the mayor, the president, and others were made in response to appropriate sentiments.

On reassembling after dinner, a paper was read by Dr. D. S. Adams, of Manchester, on Differential Diagnosis of Mammary Tumors, and an elaborate report on Gynæcology, by Dr. S. C. Whittier, of Portsmouth. During the evening session there was a report by the committee on necrology, Dr. Lathrop, of Dover, and appropriate obituary notices were read. By special invitation Dr. I. A. Watson, of Groveton, read a report of an epidemic of diphtheria which occurred in his practice in 1878, which was discussed at length and ordered to be printed. Dr. Hill read a paper entitled Medical Testimony.

On Wednesday there were reports of delegates and committees, with reports and discussions of cases. The following officers were chosen for the ensuing years: President, Thomas J. W. Pray, M. D., Dover. Vice-President, Granville P. Conn, M. D., Concord. Secretary, Moses W. Russell, M. D., Concord. Treasurer, Lyman B. How, M. D., Manchester. Anniversary Chairman, F. A. Stillings, M. D., Concord. Executive Committee, Drs. P. A. Stackpole, Dover, J. W. Parsons, Portsmouth, and A. H. Crosby, Concord, A council of twenty members and a board of censors of ten members was elected.

Some time was consumed in discussing matters pertaining to the by-laws of the society, and a report of delegates to Dartmouth Medical College was read and accepted, as well as the treasurer's report, after which the society adjourned until the third Tuesday in June, 1880.

ANNUAL MEETING OF THE MISSOURI STATE MEDICAL SOCIETY.

The annual meeting of the Missouri State Medical Society was held in Columbia. The assemblage was called to order at eleven A. M., May 20th, by Dr. E. W. Schaufler, of Kansas City. An address of welcome on the part of the citizens was delivered by Dr. Watson, of Columbia, and a similar address on the part of the university, by its president, S. S. Laws, M. D., LL. D., placing the chapel of the university, and whatever additional rooms might be required, at the disposal of the association. Dr. G. M. B. Maughs, of St. Louis, was elected president for the ensuing year, and the following report of the committee on nominations was received and adopted: vice-presidents, W. A. McAllister, C. L. Hall, W. H. Bryant, C. A. Thompson, and A. N. Girard; secretaries, A. J. Steele and W. E. Tischell; corresponding secretary, E. C. Evans; treasurer, A. B. Sloan.

The first paper presented was by Dr. T. F. Prewitt, on the Recent Progress of Surgery. He dwelt at some length on surgical interference in diseases of the rectum; the removal by laparotomy of the lower portion of the gut, when involved in malignant disease, and the establishment of an artificial anus. — Dr. Bork read a paper on Wounds and Inflammation. — Dr. J. M. Richmond presented a paper on Some of the Diseases of the Pelvic Organs. He advocated Noeggerath's theory that the wife of a man who has ever had gonorrhœa is particularly likely to have chronic inflammation of the womb or leucorrhœa. He also spoke of a case of stricture due to masturbation. — Dr. Charles Todd read a paper upon Laryngeal Growths, showing one post-mortem specimen *in situ*, and a large number of papillomata which had been removed from another patient. — Dr. Hughes denied that patellar "tendon reflex" is a pathognomonic sign of locomotor ataxia.

In the evening an address was delivered to the association by the retiring president, Dr. E. W. Schaufler, in which he condemned the superficial science of the present day, existing under the name of popular science. He also advocated the organization of the profession against quackery, and the impostures of homœopathy.

Wednesday morning, May 21st, Dr. F. J. Lutz reported a case of epithelial cancer and two cases of osteomyelitis, at the same time exhibiting the skull from the case of cancer, and the femora from the cases of osteomyelitis, one obtained post mortem, and the other by an amputation at the hip, after the method used by Jordan in the case reported in the London *Lancet* for March 22, 1879. This paper led to considerable discussion upon the origin and treatment of epitheliomata. — Dr. C. E. Michel read a paper upon Purulent Ophthalmia, in which he advocated the use of mild applications and cleanliness. This also was discussed to the full limit of the time allowed for that purpose. — Dr. A. J. Steele reported a case of False Muscular Hypertrophy, the twelfth case reported in this country. This paper was very clear, and attracted considerable attention on account of the rarity of its subject.— Dr. Wm. Dickenson read a paper on Mydriatics and Myoptics, treating of duboisin, physostigmin or eserin, and pilocarpine. — Dr. W. A. Hardaway read a paper on Treatment of Skin Diseases, laying particular stress upon local applications. — Dr. W. H. Bryant read a paper upon the Diagnosis of Chronic Bright's Disease. — Dr. S. S. Todd, of Kansas City, gave some account of ancient Egyptian medicine, especially the book of medicine written in hieroglyphics, obtained recently by Geo. Ebers, and now at Leipsic, supposed to have been written when Moses was about twenty years old.

The committee on medical education reported in favor of requiring a more thorough knowledge of the natural sciences before medical diplomas were granted than is the custom at present. The association expressed itself, by resolution, in favor of having the duty upon quinine removed. Several interesting cases were presented, and committees were appointed to examine them.

Wednesday, at 5.30 P. M., the convention adjourned, to meet at Carthage, Mo., at ten A. M., on the third Tuesday in May, 1880. In the evening a handsome banquet was given to the visitors by the citizens of Columbia.

The convention was eminently successful, and seems likely to do much for the thorough organization of the profession in the State. The specialists were rather more prominent than the general practitioners.

FASTING GIRLS.[1]

Dr. Hammond gives us in this little book a very interesting narrative of several instances where hysterical girls have pretended to pass months and even years of existence without partaking of any nourishment. Many of these cases are reported from the Middle Ages, and have been the subjects of much medical and theological controversy.

One case of more recent date was especially interesting on account of its tragic termination. A little Welsh girl, ten years of age, was said to have lived two years and two months without food, and with only an occasional wetting of the mouth by water. This case excited so great interest that it became the subject of two scientific investigations, the first one of which failed to develop any fraud. The second one, however, was conducted so rigidly that no deception on the part of the child or parents was possible, and as a natural consequence the child died of starvation, on the eighth day of the watch. The parents of the child were subsequently convicted of manslaughter for neglecting to use their influence toward making the child eat, and they were sentenced to imprisonment.

We may console ourselves that this occurred among ignorant people in Wales, but the statements of the parents were actually believed by educated people, and Dr. Hammond tells us that a similar case exists to-day in Brooklyn. A Miss Fancher is reported to have lived thirteen years without food.

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[1] *Fasting Girls: Their Physiology and Pathology.* By William A. Hammond, M. D. Published by G. P. Putnam's Sons. 1879. Pp. 76.

The motives which led her to abandon food were an accident on a horse-car and the desertion of her lover. During her long fasting she has acquired clairvoyant powers, which render her of great pecuniary value to her parents, and naturally the latter decline to have her case investigated by a scientific committee. Dr. Hammond has publicly agreed to forfeit two thousand dollars in case she stands a fair test in clairvoyancy or in fasting.

We recommend the book as entertaining reading for a half hour, and as containing many suggestive thoughts regarding the degrading tendencies of ignorant, fanatical superstition, especially when the latter is guided by avarice.

YELLOW FEVER.

The occurrence of a death from yellow fever in Memphis so early as the 9th of July, and the appearance of even a few other cases, have caused such a panic in that city as could not have been readily allayed; and, indeed, the sanitary authorities have publicly advised those who can do so to leave the city quietly. How far the scenes of last year are to be repeated no one can yet even form an intelligent opinion. It has been impossible to supply any of the Southern cities with the pure water supplies and good drainage which they so sadly need within the short time which has elapsed since the epidemic of last summer; and in spite of the sentimental talk of the philanthropists or the clamors of the politicians, who "compound for sins they are inclined to by damning those they have no mind to," the South is burdened with a large class of human beings, very many of whom are restless, indolent, ignorant, and improvident to a degree which makes any hope of teaching them to observe sanitary laws end, for the present, almost in despair. So much is against the Southern towns in their fight with yellow fever.

On the other hand, the work done by the sanitarians of the country has already created an enlightened public sentiment, which insists upon better sanitary administration; and under its influence so much scrubbing and cleaning and scavenging and disinfecting has been done that a dangerous epidemic would not find the local authorities so unprepared to meet it as they were last year. Admirable voluntary sanitary associations, like those of New Orleans and Memphis, indicate an interest among the community at large, and are doing most efficient work; the sanitary council of the Mississippi Valley, composed of the leading sanitarians, representing nearly all the prominent state and municipal boards of health in that great valley, has organized and adopted most excellent precautions for preventing the spread of infectious diseases. Finally, the National Board of Health is prepared to take vigorous action where that is not done by local authorities, or to assist any municipalities requiring help. For those ends it has trained men as inspectors throughout that portion of the country where yellow fever is to be feared, and can hardly fail to be promptly informed of any danger.

The National Board of Health is well organized, has been liberally provided with money by Congress, and has entered upon its work with such zeal and intelligence as entirely to commend itself to the whole nation. Under its direction there will be uniform, systematic, and thorough application of our best knowledge in the prevention of yellow fever during the summer, and it is hoped that a pestilence may thereby be averted. The powers of the board under the law are very great: it has promulgated well-devised regulations in accordance with the provisions of the act to prevent the introduction of contagious or infectious diseases into the United States, and also recommendations for posts designated as quarantine stations, for securing the best sanitary condition of steamboats and other vessels, and for disinfection of railroad cars, etc. We cannot too highly commend the documents which the board has issued from time to time, the essential parts of which are all to be found in the first number of its weekly bulletin, just published.

MEDICAL NOTES.

NEW YORK.

— The fifty physicians to act as assistant sanitary inspectors and make house-to-house visits among all the tenement districts of the city (for the purpose of caring for the sick children especially) were appointed by the Board of Health about the 1st of July, and commenced their work on the 7th. The service will be continued for five weeks. In addition, the Children's Aid Society, with the same idea of diminishing the rate of infant mortality, which is apt to be so large during the summer months, has sent out a corps of medical and other visitors to look after the wants of the children of the poor. The various seaside sanitaria are also again in full operation, and on the 8th of July the first installment of two hundred tenement-house children, under the auspices of the managers of The Evening Post Fresh Air Fund, were sent to pleasant country homes for a fortnight's recreation. As the farmers receive these little visitors into their houses free of charge, this plan is attended only with the expense of transportation from and to New York. The excursions of the floating hospital of the St. John's Guild have not as yet been commenced this season.

— In the latter part of June the board of aldermen passed a resolution protesting against the establishment of a reception hospital for contagious diseases at the foot of East Sixteenth Street, on the ground of the danger to which the neighborhood would thus be subjected. Before taking action in regard to the matter, Mayor Cooper, addressed a letter asking for information to the Board of Health, and the latter has replied in a communication in which the advantages of this situation are set forth. For some little time past there has been no such provision, and it is necessary, the board adds, for the proper care of cases of contagious diseases, and for their speedy removal from tenements, boarding houses, and hotels, that the department should have a reception hospital to serve as a shelter until the boat may arrive to transport the patients to Blackwell's Island. During the many years that the reception hospital was on the grounds of Bellevue Hospital, within a few rods of the main building, and when at times one hundred cases a week were temporarily lodged there, not a single inmate of Bellevue contracted a contagious disease by this means. The site occupied by the former building at Bellevue is not now available for this purpose, and that selected is believed to be the best within the city limits. The letter concludes as follows: "We know of no other place in the city of New York available for the erection of the reception hospital, nor can there be any other place as well adapted for the purpose as the one selected. Unless this board shall have the proper means for caring for contagious diseases, it cannot be held responsible for the protection of this community from their spread.

— The Flower and Fruit Mission is still prosecuting with commendable zeal the good work in which it has now been engaged for several years, and each week the ladies connected with it visit over one hundred hospitals, asylums, prisons, and other institutions, besides large numbers of tenement-houses; while many Bible-readers, sisters of charity, and city missionaries also apply to them for flowers and delicacies for their sick poor. Last season more than fifteen thousand bouquets were received from Orange Mountain alone, a locality where General McLellan, General Marcy, the Rev. Dr. William Adams, Mr. John Crosby Brown, and other prominent citizens have their summer residences. As a rule, the fruit and other delicacies are sent to the tenement-houses, as the inmates of the hospitals are better provided for in this respect than the out-door sick among the poor.

— A coroner on Staten Island has been condemned to state's-prison for a year for perjury in preparing an official statement of an inquest that never was held, and yet, strange to say, after his conviction and sentence he actually proceeded to take cognizance of a murder case on the 4th of July, on the ground that his successor, who had been appointed the day previous by Governor Robinson, had not yet qualified. By the operation of the Revised Statutes he was at once removed from office by his conviction, and it would be interesting to learn why he was not under lock and key at the time he was holding this last inquest.

— A coroner of Westchester County has sent to the Bureau of Vital Statistics the verdict of his jury in a recent case, as follows: "that Ellen Kirby came to her death (at Yonkers), from *post mortem* hæmorrhage.

— A colored woman died in Brooklyn, on the 3d of July, who is said to have been one hundred and ten years old. The account given of her is that she was born in Virginia, July 4, 1769.

— The degree of LL. D. has been conferred by the University of Vermont upon Professor William Darling, F. R. C. S., of the medical department of the University of the City of New York, who, like many other New York physicians, has gone abroad this summer. The same degree has also been conferred by Amherst College on Drs. J. Marion Sims and Freeman J. Bumstead.

PHILADELPHIA.

— It is announced that a preliminary examination will be instituted next year by the University of Pennsylvania for admission into its medical department, which every candidate who has not previously received a collegiate degree must pass. "The applicant will be required, first, to write a brief essay, not exceeding a page of foolscap, which will serve as a test of his qualifications in orthography and grammar; secondly, to undergo an examination in the elementary principles of physics, as contained in Fowne's Chemistry; thirdly, to pass an examination in easy Latin prose translation (first book of Cæsar's Commentaries). In lieu of Latin any language other than English may be substituted. The new regulation is intended to go into effect in the fall of 1880.

— A peculiarly unfortunate occurrence took place recently in this city. A lady, twenty-eight years of age, went out early in the evening to go to consult a physician. As she did not return as soon as she promised, her husband went after her, and found her lying apparently dead in the office, and the doctor and his niece engaged in trying to resuscitate her with the galvanic battery, but their efforts were unsuccessful. It is alleged that she was the victim of malpractice, but the report of the coroner's physician has not yet been communicated for publication.

— On the evening of the 8th inst. two men jumped from the windows of the Jefferson Medical College Hospital, and were fatally injured. One was suffering from erysipelas, and was probably delirious; the other was apparently a case of suicide.

— The medical schools are now enjoying their summer solstice. There are strong indications that the good example set by the University of Pennsylvania in the matter of lengthening the term and instituting a preliminary examination will be followed by the magnates of Jefferson College within a very short period.

— The Children's Hospital of this city has had for several years a summer hospital at Atlantic City, where the little patients, with their mothers, are well cared for. Experience has shown that the sea air is the great specific for summer complaints, and this institution has done very great service. During former years it was the custom to give the city children free excursions to Fairmount Park during the hot weather, but for the last three years a sanitarium for children has been located on an island in the Delaware opposite the city front, which is largely patronized by the poor. Everything is free, including transportation, food, medicines, and attendance, and it is accomplishing a great deal of good.

CHARLESTON, S. C.

— A city ordinance interdicts the opening of the soil within the city limits for any purpose after the 1st of June. Much excitement has prevailed, this season, from the operations of the water company in their efforts to furnish an early supply of water from the artesian well, which has long been such a desideratum among our people. The streets have been dug up to some extent, but only about two and a half miles of piping are down. The requisite amount of piping on its way to Charleston was unfortunately lost by sea; the agent being thus prevented from complying with the terms of the contract, which required the work to be finished by the 1st of June, he was compelled to stop all further procedure by the city council and the board of health. The contractor is of opinion that had he been allowed he could have accomplished the whole work by the 1st of July. With a range of maximum temperature averaging throughout June but 86.1°, and during this week only 80.9°, and with a mortuary return of *one* death to each five thousand last week, it appears unfortunate that any opposition to the completion of this important enterprise was deemed necessary. Until the subject of hygiene constitutes a part of the curriculum of every medical college, and less dissentient views are entertained of the origin of disease, we need make no particular comment on this matter with the view of changing public opinion. But of this action of the council and board it may with certainty be predicted that should disease break out during the months of August and September, either mildly or with all the virulence of an epidemic, it will undoubtedly be ascribed to the turning up of this earth in our streets; while again, should all sickness be avoided this season, the authoritative suspension of this work will be invoked to exhibit the source whence all diseases arise.

— A supply of water in a sanitary point of view is much required, as it will stop the use of impure pump water among the poor; and then again for flushing purposes, were this needed, it can fill the tidal drains to repletion. The full force of the stratum of water reached has been tested, and it has been computed that the well supplies one million gallons per diem which is quite a sufficient amount for a city of the size of Charleston. London is furnished with one hundred million, and Paris with only fifty million, gallons per diem.

LETTER FROM VIENNA: CÆSAREAN SECTION.

Mr. Editor, — On Sunday, May 25th, I had the good fortune to see a case of cæsarean section with extirpation of the uterus and both ovaries, a description of which may be of interest to your readers. This operation, which originated in America, has lately been revived here, and is now well established, having been done, in all, twenty-two times, and seven times in Vienna alone. Professor Carl Braun has operated three times previous to the operation I am about to describe. One of the patients was in a very bad condition at the time of the operation, and died soon after, but the other two cases were successful. Professor Spaeth has operated twice. In one case the patient was almost dead at the time of the operation, dying soon after, and a putrid child was extracted. In the second case both mother and child were saved. Professor Gustav Braun has operated once, the mother dying, and the child being saved.

Professor Carl Braun performed his fourth operation at 10.40 P. M., May 25th, in the lecture room, about fifteen spectators being present. The patient is a dwarf, four feet in height, and is twenty-five years old. She had rachitis when a child, and is frightfully deformed. She was raped by a drunken man, thirty-six years old, last August, and had no difficulty during her pregnancy, coming to the hospital soon after labor pains began, and being in apparently excellent condition, with the exception of a slight attack of bronchitis. The abdomen was very large, the child being apparently of full size. The head presented, but was freely movable above the brim of the pelvis. The pelvis was of the rachitic type, with an antero-posterior diameter of two inches. The operation was performed soon after the beginning of labor, by Professor Carl Braun, assisted by Professor Gustav Braun and other gentlemen.

The patient was narcotized with a mixture of ether and chloroform, which is in general use here, the abdomen washed with carbolic acid and water, the pubes shaved, and the catheter introduced. The membranes had ruptured spontaneously about half an hour previously. An atomizer with a solution of thymol stood in the room, but the stream was not directed over the abdomen. The incision was made from the umbilicus downward within three inches of the symphysis, in the linea alba, and carefully deepened until the peritoneal cavity was opened. The arteries, two small branches, were secured by torsion, and then a probe-pointed bistoury was introduced, and the incision prolonged upward and to the left one and a half inches. The uterus was thus exposed, and was pushed forward by an assistant, so that its anterior surface protruded through the abdominal wound, and an incision being made with a scalpel, a probe-pointed bistoury was introduced, and the incision prolonged to about four inches. The gush of blood which followed was prevented from entering the abdominal cavity by the forward position of the uterus. The child was then extracted by the feet, and the placenta was torn off at the same time. The uterus was then grasped around the vaginal portion and compressed, the bleeding being controlled in this way until the chain of a Billroth's écraseur was adjusted. This was so applied as to inclose the uterus at the anatomical internal os, both ovaries thus being above the chain, and was strongly compressed. The uterus was then excised three quarters of an inch above the chain, the ovaries being included in the excised mass. The stump of the uterus was then inclosed in a steel clamp, below the chain of the écraseur, and, the latter being removed, the stump above the clamp was transfixed with a long needle, with the idea of preventing the clamp from slipping when sloughing began. Two rubber drainage tubes were then inserted, and the edges of the abdominal wound were brought together, the stump and clamp remaining outside. Silk sutures were used, being inserted over a flat sponge, and tied after the sponge was removed. The wound was dressed with a Lister's bandage, some preparation of tar being applied immediately over the wound. The whole operation took just an hour, and the patient rallied well, and seemed much comforted at the promise of a glass of brandy. The child was a large girl, and was in excellent condition.

The whole operation was exceedingly well done, and four days later the patient was doing well, and seemed in a fair way to recover, though the bronchitis caused some anxiety. The advantages of this operation are, first, that the patient is never exposed again to the danger of a similar operation, should she survive; secondly, that the bleeding is absolutely controlled after the extraction of the contents of the uterus; and, thirdly, that the danger of peritonitis is much lessened by avoiding uterine sutures, and secondary hemorrhage from the uterine wound, which was so often the case when uterine sutures were not employed.

The results of the Vienna cases are certainly very favorable, and so far seem to recommend a wider adoption of the operation.

HAROLD WILLIAMS, M. D.

VIENNA, *May* 27, 1879.

P. S. The result of the operation of cæsarean section, which I described in my last letter, may be of interest. The patient at the time of the operation had a slight attack of bronchitis, and during the first week, in a fit of coughing, the wound opened, and a fatal peritonitis set in. This unfortunate result did not prevent Professor Braun, however, from performing the same operation again on the 20th of June. This operation, which I also saw, was almost exactly similar in its details to the one described in my last letter, the main object of interest being that the true conjugate measured two and one half inches, the head of the child being very large. I do not recall a case in which cæsarean section has ever been performed where the conjugate was so large, and this fact shows in what high esteem Professor Braun holds the operation.

With two operations of cæsarean section in six weeks, it certainly seems as if Vienna would soon furnish us with abundance of material for judging the merits of the new operation, though I cannot but think that if more attention were paid to modern antiseptic surgery better results might be obtained.

H. W.

VIENNA, *June* 22, 1879.

SHORT COMMUNICATIONS.

DYSTOCIA FROM DORSAL DISPLACEMENT OF THE ARM.

MR. EDITOR,— The management of the case of labor reported under the above title in the JOURNAL of June 19th ultimo presents some obvious points for criticism.

The labor, though its twenty-hours' duration was not under ordinary circumstances exceptionally long, may be fairly called tedious, considering that the *vis a tergo* and the *vis a fronte* were both powerful. He writes: "Although the pelvis was roomy and the pains strong, the head advanced very slowly, seemingly out of all proportion to the expulsive force and good size of the pelvic cavity; but as it did advance, though with extreme labor, I thought it unwise to send for forceps, as my office was at a great distance." On general principles, I think the accoucheur should always, while attending a case, have his forceps at hand. Aside from the relief that may be afforded the patient by their judicious use, emergencies may arise endangering the life of mother or child, and which can be met only by the prompt application of the forceps. Moreover, in time of need the physician will find his own instruments, to whose use he is accustomed, more serviceable than any he can borrow from a neighboring practitioner. I am satisfied of the soundness of the opinion of Dr. Fordyce Barker, that many injuries to the maternal soft parts, especially vesico-vaginal fistula, often unjustly charged to the forceps tardily applied, might have been entirely avoided by their timely use. In the present case I think a careful examination should have been made to determine the cause of dystocia.

As to the removal of the placenta by traction, let me call attention to the words of Dr. Robert Barnes, who writes [1] in italics: "The uterus may be turned inside out by pulling upon the cord." Professor Wallace, of Philadelphia, has been for many years in the habit of relating to the class a case of immediate death following that procedure. It is condemned by Playfair. The method by expression — Credé's method — is more in accord with nature's method, and I have employed it with satisfaction.

EDWARD L. PARKS.

MATTAPOISETT, *June* 22, 1879.

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[1] Obstetrical Operations, 1874, page 422.

REPORTED MORTALITY FOR THE WEEK ENDING JULY 5, 1879.

Cities.	Population estimated for July, 1879.	Reported Deaths in each.	Annual Death-Rate per 1000 during the Week.	Percentage of total Deaths from				
				The Principal "Zymotic" Diseases.	Diarrhœal Diseases.	Scarlet Fever.	Pneumonia.	Diphtheria and Croup.
New York	1,085,000	752	36.14	45.35	37.23	3.06	2.79	.80
Philadelphia	—	—	—	—	—	—	—	—
Brooklyn	564,400	—[1]	—	—	—	—	—	—
Chicago	—	287	—	37.28	29.96	2.79	1.74	2.79
St. Louis	—	151	—	38.41	30.46	—	3.31	—
Baltimore	365,000	244	34.86	41.39	32.79	4.92	1.64	1.23
Boston	360,000	105	15.20	15.24	3.81	—	1.90	7.62
Cincinnati	280,000	146	27.19	39.73	27.40	6.16	.68	3.42
New Orleans	—	126	—	20.63	14.29	—	3.18	2.38
District of Columbia	160,000	122	39.73	41.80	36.07	—	1.69	—
Cleveland	—	40	—	25.00	12.50	2.50	5.00	—
Pittsburgh	—	91	—	53.85	43.96	2.20	3.30	—
Buffalo	—	—	—	—	—	—	—	—
Milwaukee	—	35	—	14.29	2.86	2.86	—	8.57
Providence	101,500	27	13.87	25.93	14.81	—	—	3.78
New Haven	60,000	20	17.38	30.00	25.00	—	—	—
Charleston	57,000	39	35.67	17.95	15.38	—	—	2.56
Nashville	27,000	13	25.11	46.16	38.46	—	—	—
Lowell	53,300	15	14.67	26.67	—	5.55	—	6.67
Worcester	52,500	18	17.87	22.22	5.55	—	5.55	11.11
Cambridge	51,400	7	7.10	28.57	—	14.29	28.57	14.29
Fall River	48,500	19	20.43	42.11	5.26	15.78	—	5.26
Lawrence	38,200	28	38.22	39.29	32.14	—	3.57	3.57
Lynn	34,000	13	19.94	23.08	7.69	15.38	23.08	—
Springfield	31,500	9	14.90	44.44	11.11	11.11	11.11	22.22
New Bedford	27,000	9	17.38	22.22	11.11	—	11.11	11.11
Salem	26,400	11	21.73	18.18	—	—	—	9.09
Somerville	23,350	7	15.63	42.86	14.29	—	—	—
Chelsea	20,800	4	10.03	—	—	—	—	—
Taunton	20,200	7	18.07	—	—	—	—	—
Holyoke	18,200	7	20.06	42.86	14.29	28.57	—	—
Gloucester	17,100	6	18.29	50.00	—	50.00	—	—
Newton	17,100	3	9.15	—	—	—	—	—
Haverhill	15,300	4	13.63	—	—	—	—	—
Newburyport	13,500	3	11.59	—	—	—	—	—
Fitchburg	12,500	3	12.51	33.33	—	33.33	—	—

[1] Total not reported.

Two thousand three hundred and seventy-one deaths (excluding Brooklyn) were reported: including Brooklyn, 1066 deaths were reported from the principal zymotic diseases, 822 from diarrhœal diseases, 252 from consumption, 81 from scarlet fever, 67 from pneumonia, 59 from diphtheria and croup, 28 from malarial fevers, 26 from whooping-cough, 24 from bronchitis, 21 from cerebro-spinal meningitis, 15 from measles, 14 from typhoid fever, six from erysipelas, none from small-pox. From *malarial fevers*, 11 deaths were reported in New York, eight in St. Louis, four in New Orleans, three in District of Columbia, two in Brooklyn and Chicago, one in Baltimore and Charleston. From *whooping-cough*, eight in New York, four in Cincinnati, two in St. Louis, Baltimore, and Cleveland, one in Boston, District of Columbia, and Pittsburgh. From *bronchitis*, seven in New York, two in Boston, New Orleans, and Cincinnati, one in Chicago, St. Louis, District of Columbia, and Providence. From *cerebro-spinal meningitis*, six in New York, five in Chicago, three in Fall River, two in Somerville, one in Baltimore, Boston, New Orleans, Cleveland, and Providence. From *measles*, four in New York and Pittsburgh, three in Brooklyn, two in St. Louis, one in Baltimore and Cleveland. From *typhoid fever*, three in District of Columbia, two in New York and Baltimore, one in Brooklyn, Boston, Pittsburgh, New Haven, Nashville, Lowell, and Lawrence. From *erysipelas*, one in New York, Brooklyn, Boston, Pittsburgh, Providence, and Salem.

Allowing for cities not reported, there is a decreased mortality from diphtheria and croup, and a very great increase in diarrhœal diseases, the totals for the last seven weeks being respectively 39, 58, 110, 175, 267, 460, and 822. In the nineteen cities of Massachusetts, there is a considerable increase in scarlet fever; no noteworthy change in other diseases.

The meteorological record for the week in Boston was as follows: —

Date	Barometer.	Thermometer.			Relative Humidity.				Direction of Wind.			Velocity of Wind.			State of Weather.[1]			Rainfall.	
	Mean.	Mean.	Maximum.	Minimum.	7 A. M.	2 P. M.	9 P. M.	Mean.	7 A. M.	2 P. M.	9 P. M.	7 A. M.	2 P. M.	9 P. M.	7 A. M.	2 P. M.	9 P. M.	Duration.	Amount in Inches.
June 29	29.720	66	82	60	95	90	97	94	SW	SE	N	8	10	11	O	R	O	—	2.47
" 30	29.969	66	77	62	78	59	60	65	NW	NW	NW	10	29	11	C	F	C	—	—
July 1	30.216	64	73	56	61	46	63	57	NW	SE	SW	10	10	5	C	F	F	—	—
" 2	30.110	76	87	57	69	30	60	53	W	SW	W	6	12	10	C	C	C	—	—
" 3	29.933	80	94	66	72	37	82	64	W	SW	W	9	15	7	C	F	C	—	.23
" 4	29.839	78	91	63	73	42	87	67	SW	SW	NW	10	23	5	F	F	O	—	.30
" 5	30.224	59	76	56	64	60	48	54	NE	E	SE	18	14	4	O	C	C	—	—
Week.	30.002	70	94	56				65	W			1839 miles.						3.5	3.0

[1] O., cloudy; C., clear; F., fair; G., fog; H., hazy; S., smoky; R., rain; T., threatening.

Yellow fever has appeared in Memphis (two deaths, four cases), and in Water Valley, Miss., one death has been reported. Of 94 deaths in June in Norfolk, 22 were from diarrhœal diseases, 11 from consumption, five from malarial fevers, four from pneumonia, two from diphtheria and croup, and none from small-pox, measles, or scarlet fever.

For the week ending June 14th, in 149 German cities, with an estimated population of 7,553,339, the death-rate was 27.0, a decrease of 0.3 over the previous week, with a marked increase from diarrhœal diseases, and decrease in diphtheria and scarlet fever. Three thousand nine hundred and nineteen deaths were reported: 582 from consumption, 413 from acute diseases of the respiratory organs, 413 from diarrhœal diseases, 100 from diphtheria and croup, 68 from scarlet fever, 43 from measles, 43 from typhoid fever, 39 from whooping-cough, 20 from puerperal fever, four from typhus fever, three from small-pox (in small cities). The death-rates ranged from 18.6 in Metz to 45.5 in Augsburg; Königsberg 35.0; Dantzic 29.1; Breslau 29.3; Munich 33.9; Stuttgart 20.8; Dresden 23.5; Cassel 23.9; Berlin 31.2; Leipsic 23.6; Hamburg 26.8; Hanover 20.1; Bremen 24.0; Cologne 23.4; Frankfort-on-the-Main 20.1; Strassburg 26.7; Darmstadt 30.6. Also for the same week Vienna 29.8; Budapesth 46.4; Prague 50.1; Trieste 27.2; Basle 22.7; Paris 26.3.

For the week ending June 21st, in the 20 English cities and towns having an estimated population of 7,383,999, the death-rate was 18.5, a decrease of 1.2 from the previous week, showing a considerable decrease in diseases of the respiratory organs, whooping-cough, fever, and diarrhœa. Two thousand six hundred and nineteen deaths were reported: 206 from diseases of the respiratory organs, 129 from measles, 90 from scarlet fever, 67 from whooping-cough, 34 from diarrhœa, 27 from fever, 16 from diphtheria, 12 from small-pox (in London). The death-rates ranged from 11.2 in Plymouth to 25.7 in Manchester: London 19; Brighton 16.3; Plymouth 11.2; Bristol 16.2; Birmingham 17.2; Liverpool 19.4; Leeds 15.4. In Edinburgh the death-rate was 23; in Glasgow 20; in Dublin 39 (small-pox decreasing, — six deaths). In Geneva and Zürich the death-rates were 14.2, in Basle 20.7; in Lausanne 24.7; in Lucerne 21.6; in Vevay 11.5.

* * *

BOOKS AND PAMPHLETS RECEIVED. — Memoranda of Poisons. By Thomas Hawkes Tanner, M. D., F. L. S. Fourth American from the last London Edition. Philadelphia: Lindsay and Blakiston. 1879.

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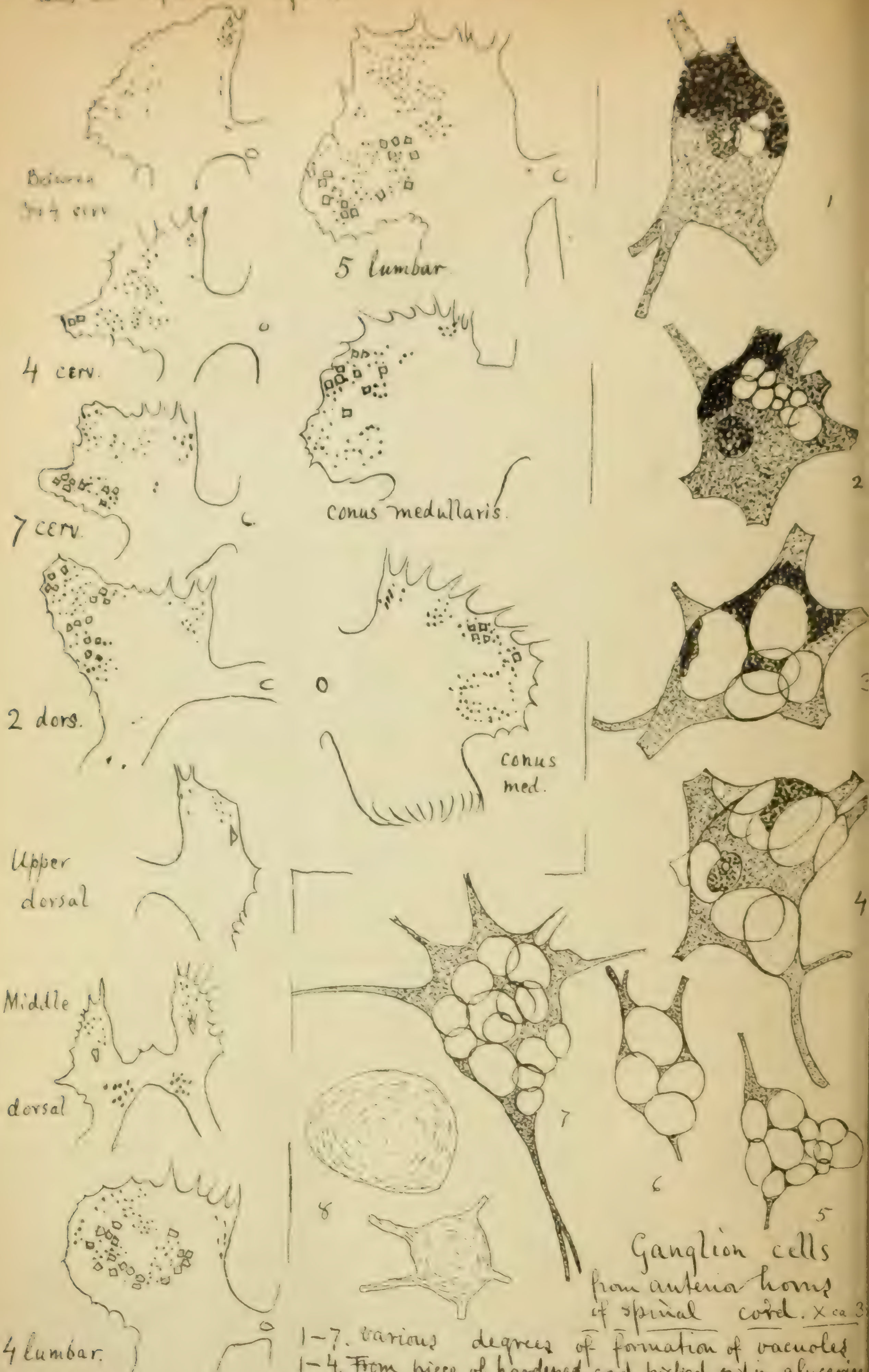
Annual Report of the Inspectors of the State Prison of the State of Michigan. Lansing. 1878.

The Radical Cure of Hernia by the Antiseptic Use of the Carbolized Catgut Ligature. By Henry O. Marcy, A. M., M. D. (Reprint.) Cambridge: Riverside Press. 1879.

On Diseases of the Stomach, the Varieties of Dyspepsia, their Diagnosis and Treatment. By S. O. Habershon, M. D. Lond. Third Edition. Philadelphia: Lindsay and Blakiston. (A. Williams & Co.)

The open outlines of [illegible] vacuolated cells. The other cells are represented by dots



Ganglion cells from antenia horns of spinal cord. × ca 3

1–7. various degrees of formation of vacuoles

1–4. From piece of hardened cord picked out in glycerin

5–7 From transparent sections.

8 Degenerated homogeneous cells with atrophy of processes

R.T.E. del.

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A CASE OF ANTERIOR SPINAL PARALYSIS WITH FORMATION OF VACUOLES IN THE GANGLION CELLS OF THE SPINAL CORD.[1]

BY ROBERT T. EDES, M. D.

Mary M., aged twenty-six, born in Ireland, living in Boston, housewife, entered the Boston City Hospital March 13, 1879.

March 13th. Perfectly well until four weeks ago, when she vomited steadily for four days. Was costive for two weeks. One week from beginning of illness began to suffer from pain on inner aspect of both legs, appearing first in the feet, shooting as far as ankles, then to the knees, and finally up the thighs. A few days later she began to lose power in both legs, and sensation below the knee became impaired. After the loss of power was noticeable, numbness and prickling feelings were felt in legs. Two or three days ago hand began to feel numb, and its strength impaired. Has vomited occasionally during last three weeks. Cannot now stand, and suffers greatly from pain. No vesical trouble. Bowels constipated. No sensation of constricting band above umbilicus. Vomiting came on about twelve, and she complained of pain, which was relieved by morphia.

March 14th to 19th. There is but little power of voluntary motion in legs. Can move her fingers, but cannot grasp a pen well enough to write. The muscles of the calf are much wasted. Muscles above knee react to faradic current, but much less than normally. Hardly any reaction below knee. The strongest current of Fleming and Talbot's battery hardly produced contraction of muscles. Tendon reflex absent. Ordinary sensibility somewhat diminished, but no complete anæsthesia of legs. Numbness in hands, but not in arms. Complains of pain at lower part of thorax, from line of nipple on right to somewhat behind the corresponding point on the other side. Pulse rapid and feeble; temperature a little raised, only once or twice above 100° F., and much of the time below 99° F. Cups to the back, and morphia *pro re nata.* Urine dark, 1035, acid; sugar and albumen absent; sediment, blood, pus, bladder epithelium, fusiform cells, one or two granular casts (?), uric acid. March 21st. Did not sleep, delirious all night, some delirium this morning. P. M. Was very noisy. Hallucinations during early part of night were marked. March 24th. For two days there have been involuntary and unconscious discharges from bowels and bladder.

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[1] Read before the American Neurological Association, New York, June 19, 1879.

April 1st. Mouth drawn a little to left and a slight twitching of a little muscular slip below septum narium. April 5th. Delirious. Complains of pain in her chest, which she attributes to being run over by the cars.

From this time her condition remained nearly the same. She lay partly conscious and stupid, with occasional screaming or crying. She could move her feet, but only by swinging them from the thigh and by the thigh muscles. She could move her hands somewhat in the same way, constantly drawing them up, as if to pull the bed-clothes, which, however, she was entirely unable to grasp. The symmetrical atrophy of both legs below the knees and of both arms below the elbows was very striking. The treatment consisted of chloral or bromide, with as much food as she could be got to take. Refuses food. Involuntary dejections. Some drawing of face to left. Left pupil larger than right, but both react to light. April 23d. Died.

At the autopsy, made by Dr. Cutler, beyond some not remarkable staining and congestion, nothing special was found in the thorax and abdomen. The uterus bore the marks of a former pregnancy. In the brain the puncta vasculosa were normally distinct; vessels not abnormal. Nothing remarkable found in the cortex or great ganglia. The spinal cord was perhaps a little less injected proportionally than the brain and the rest of the body. The distinction between the gray and white matter at the cervical enlargement was thought to be a little less marked than elsewhere.

After the cord had been placed in alcohol with iodine for a few days, then in chromic-acid solution, and again in alcohol, sections were prepared in the usual manner. Portions of the anterior horns were also picked out in glycerine.

The white substance of the cord appears normal in every respect, there being no increase of neuroglia,[1] and no atrophy or swelling of the nerve fibres.

The gray substance retains its normal conformation and symmetry. Its connective tissue, so far as can be seen in sections, and upon careful examination of portions picked out in glycerine, is unchanged.

The vessels in most of the sections presented no alteration, but here and there one could be found which appeared to have an unusual number of nuclei in its sheath. In one section, from the cervical region, where a piece of artery of this kind was seen in the anterior horn, an oval clump of small cells, highly colored by carmine, was present in the "neck" of the posterior cornu. These were the only appearances which pointed toward any proliferative process.

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[1] My friend, Dr. J. C. Shaw, of Brooklyn, thought that he detected the presence of sclerosis in the lateral columns. A careful examination of a new set of sections has failed to convince me of its existence.

The principal alteration to be found was in the large cells of the anterior cornua, which presented a very striking and obvious lesion to an examination even with low powers.

Large numbers of these cells were marked by the formation of *vacuoles*, round, oval, or, in case of pressure, somewhat polygonal spaces, appearing transparent, clear, and uncolored. These cavities were present in varying numbers, from one or two small ones, situated near the periphery of the cell, up to a dozen or more, transforming the cell into a swollen, honey-combed structure, in which the protoplasm formed but a scanty frame-work supporting the vacuoles. The nucleus was sometimes present and normal in appearance, even when a large part of the cell was transformed into the vacuoles; but in other cases seemed to be pushed to one side and compressed, or altogether wanting. The processes were comparatively little changed, but a careful examination showed that especially in those cells where the alteration was most advanced they were smaller, and could not be traced so far into the surrounding structure. The pigment was but little altered, and the general appearance of the protoplasm, where it remained, was not markedly different from the normal.

Beside these "dropsy-cells" (I use the word merely for the sake of brevity, and not as having any pathological significance), there were to be found a few which were altered in another way, being rounded, the processes shrunken or indistinguishable, the nucleus invisible, and contents pale and homogeneous. These were much less numerous than the others, and not to be found in all sections. None of the shrunken and atrophied cells often found in cases of various forms of myelitis were to be found, and if any had undergone the "vitreous" change often observed I was unable to recognize it. I saw no vacuoles in any nucleus, nor any other change than the compression already described.

The distribution of these "dropsy-cells" forms an interesting and suggestive study. It can be easily seen in the accompanying sketches, the outline of the gray substance and the position of the degenerated cells being determined by the camera lucida.[1] The abundance of the "dropsy-cells" is, if at all erroneous, rather understated. The lesion, so far as could be seen, was confined to the cervical enlargement, with some traces in the upper dorsal region, and to the lumbar enlargement. In these regions, again, it affected a special portion of the gray substance, namely, the outer group of cells, and, in the cervical enlargement, those lying externally and posteriorly. The little group occupying the anterior inner angle of the anterior horn was in only one instance, and to the extent of two cells, affected, and in the cervical region the group next to it remained free.

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[1] In most of the figures only *one* horn is represented, the distribution of the diseased cells being exceedingly symmetrical.

As the lesion begins to appear in descending the cord, we first find two cells in the little antero-internal group, which from this point down afterward remains entirely free. Then we find two or three cells in the outer angle; then more of them along the middle and posterior portion of the anterior horn. In the upper dorsal region, in a few sections, a single degenerated cell may be found in the middle or external portion of the horn. In the lumbar region, so far as the more rounded form of the gray matter permits the distinction of the various groups, a similar distribution was observed.

The posterior vesicular columns of Clarke were not affected.

In the posterior horns I was unable to find any change of the few cells occupying that region.

The muscles below the knee, which were the only ones examined, exhibited the usual granulo-fatty degeneration in various stages.

I will not fatigue the association by referring to all or many of the cases in which a similar lesion has been observed. Suffice it to say that vacuoles have occasionally been seen by various observers in the ganglion cells, both of the spinal cord and the cerebral cortex, and that they have been supposed to have some pathological significance. Thus Mierzejewski represents some small ones in the brain of a general paralytic.[1] Leyden figures and describes them in his work on spinal diseases, and Gower and Sankey [2] speak of vacuoles "partly outside the cells" as being found in the spinal cord in cases of "canine chorea."[3] A case, however, a report of which I saw for the first time after my own had been described and figured, has been recently published, in which, as in the present one, this seems to have been the most marked lesion of the spinal cord found; and the authors consider it worthy of a detailed description both clinically and pathologically. It is reported by Kahler and Pick.[4] Clinically it belongs to the group of anterior spinal paralyses, and agrees closely with the "subacute general anterior spinal paralysis" of Duchenne, except in the supposed absence of the atrophy of certain muscular groups *en masse*, a feature the authors think may, after all, have been present, though masked by the development of fat.

In the account of the examination of the spinal cord it appears that only the lower part of the cervical enlargement was examined, and the distribution of the altered cells, as regards the various groups, is not mentioned. They say expressly that the white matter was normal, and the connective tissue not increased. All the cells are said to have had a faded, dull outline, and many of them to have contained the vacuoles shown in their plate.

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[1] Arch. de Physiologie, Deuxième Série, Tome ii. Pl. vi.

[2] Med.-Chirurg. Trans., 1877, vol. lx. p. 234.

[3] At a subsequent session, Dr. Seguin exhibited sections from a case of ordinary transverse myelitis, in which some of the cells contained a few vacuoles.

[4] Vierteljahrsschrift für Praktische Heilkunde, Bd. cxlii. p. 5.

This case, together with my own, would go far to show that a parenchymatous change may take place independently of a lesion, or with a very slightly developed alteration of the connective tissue or blood-vessels.

The case of Dr. Webber, published in the first volume of the transactions of this society, as well as that of Cornil and Lepine, shows clearly enough that changes of an inflammatory character are *likely* to be present, and may be one of the causes of degeneration; but it is also probable that they are not *necessary* to a complete development of symptoms of great or fatal severity, and that the parenchymatous lesion, whether we call it inflammatory or degenerative, is of primary importance. It seems to me, therefore, that the name given by Duchenne, "subacute general anterior spinal paralysis," is really a more comprehensive one than the more modern "polio-myelitis, or "tephro-myelitis," since the question of inflammation, implied by this terminology, is precisely that about which doubt still hangs.

◆

ON SWALLOWING FOREIGN BODIES.[1]

BY ISAAC F. GALLOUPE, M. D., LYNN.

Young physicians (and old ones too, for that matter) are sometimes puzzled to know what to do when called to a case of foreign body in the pharynx, œsophagus, stomach, or air-passages. What had I better do? What will be the result if nothing is done? If the foreign body is in the pharynx or œsophagus, had I better try to remove it, or push it down? If in the stomach, had I better let it go, or give an emetic? If in the air-passages, ought I to remove it at once (the symptoms not then being urgent), or should I wait for further developments? These and other questions come up, and must be answered without delay. If I only knew of a similar case, how it would help me in deciding how to act!

To aid in solving these questions is my object in reporting the following cases: —

Case I. A lad of four years fell and broke his left thigh. A Liston splint was applied, and the patient placed upon his back; soon after a friend made him a present of two old-fashioned copper cents (one and one eighth inches in diameter). He put them into his mouth for safe-keeping, when one of them slipped down into his stomach. I directed the mother to keep his stomach full of soft solid food, and to avoid cathartics. He complained moderately of dull pain and a sense of weight in the abdomen; the bowels moved nearly every day, but the coin did not appear until after the splint was taken off and the patient sat up, — six weeks after the accident.

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[1] Read before the Lynn Medical Society, February 5, 1879.

Case II. An old man, while eating his dinner, got a large piece of pork impacted in the pharynx, three days before I was called. During that time he had been unable to swallow even water, and had suffered considerable pain. A strong stench proceeded from his mouth. The foreign body was pushed into the stomach with a probang (an ivory ball secured to the end of a piece of whalebone), and no further trouble ensued.

Case III. A young woman, while at breakfast, had the œsophagus plugged up by a piece of beefsteak. This was treated as the case above, with a like result.

Case IV. A child six months old, while holding a tin whistle (cylindrical in form, a half inch in diameter, and one and a quarter inches long, with one end fringed with teeth an eighth of an inch long), let it slip into the pharynx. I passed my finger into the throat for exploration, when I touched the whistle, and caused it to pass into the stomach. The child was kept well fed, and twelve hours afterward it had a discharge, without pain or difficulty, in which the whistle was found.

Case V. I was called to see a child two years of age, who suffered extreme pain "when placed on the po," and could not be compelled to stay in that position long enough to have a discharge. On examination with the finger in the rectum, I found a large sewing needle lying horizontally across the rectum, each end piercing the intestinal wall. It was removed with a pair of polypus forceps, and no trouble followed. Two days before, the child told its mother that it had swallowed a needle, but it was not believed.

Case VI. A middle-aged man, on attempting to rise from his bed in the morning, experienced severe cutting pain in the rectum, which was greatly increased when the bowels were inclined to move. After suffering thus in bed for two days I was called. He would allow no examination without ether. On passing the finger into the rectum, a piece of bone about an inch in length and the same in diameter, with sharp edges, was found, and easily removed, after which no further trouble was experienced. He had no recollection of having swallowed the bone.

Case VII. A child two years old was given a hard-boiled egg, to which a portion of the shell still adhered. Soon after, the child began to cry with pain in the bowels, and the next day profuse bleeding occurred from the anus. I found the little patient faint from loss of blood, and it died a few hours subsequently, having bled to death from a wound of the intestine.

Case VIII. A child one year old swallowed a pin. It suffered daily from pain in the abdomen for about two months, when it ceased to complain. The discharges were all carefully examined, but the pin was never found.

Case IX. A gentleman who wore a single false tooth on a gold plate an inch and a half long, each end of which terminated in two prongs for fastening the plate to the natural teeth, awoke at midnight with a choking sensation. The tooth and plate, which he always wore at night, could not be, and have not since been, found, although all the discharges from the bowels were carefully examined for several weeks afterward. He suffered no inconvenience from the accident, except from the loss of the tooth.[1]

Case X. A young lady, while eating fried fish, declared that a bone was stuck in her throat. On examination no bone was found, but as she persisted in saying that a bone was there another examination was made, when a large fish bone was found stuck into the posterior surface of the palate. It was readily removed by curved forceps.

Case XI. A child four months old swallowed a "sheath-pin" (held open, by a spring, about an inch), point upward. It lodged in the œsophagus, and was brought up on the first attempt by the "bristle probang."

Case XII. I was sitting at table on board of a yacht, partaking of clam chowder, when the gentleman on my left suddenly choked, and rushed out of the cabin. I followed him, and found that respiration had ceased. Passing my finger into his throat, I could just reach the cause of the trouble, which was a clam "side," a portion of which was in the pharynx, but one end of it had fallen into the rima glottidis. I was able to clear the way for breathing, with my finger, and afterwards he removed the foreign body with his fingers, after a prolonged fit of hawking.

Case XIII. A child about three years old let a two-cent piece fall into the pharynx. No trouble arising from the accident, nothing was done about it until the fourth day after, when I was called, and an attempt was made to remove it. The bristle probang proved to be too yielding. It was caught by the money probang, but could not be withdrawn by any force it was thought safe to use, the coin was so firmly impacted. Forceps seemed the only proper instrument with which to remove it. The flat surfaces being forwards and backwards, a forceps opening antero-posteriorly was required. Not having such a one at hand, and it being Sunday, and hence impossible to get one that day, it was decided to postpone any further action until Monday. Accordingly, I visited the patient on that day, equipped with suitable instruments, but found the case in other (homœopathic) hands. I afterward learned that it was removed, with forceps, after about ten days' delay.

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[1] This person died on the 29th of last March, about four years after this mishap, of chronic pleurisy complicated with nervous prostration. At the autopsy an abscess of the liver was found, but careful search for the missing tooth was not rewarded.

CASE XIV. A child one year old swallowed a pin one and a fourth inches long, upon which were strung two porcelain buttons one half inch in diameter. I was called to see the patient about eight weeks after the accident, and found it apparently in the last stage of croup; respiration was rapid and noisy, voice lost, cough croupy, skin cyanotic, and the strength nearly exhausted. On passing my forefinger down into the pharynx I became painfully aware that the pin was present, with its point directed upward; it was firmly imbedded, was removed with some difficulty with forceps, but the breathing was not improved thereby. Search was then made for the buttons, but they could not be found. The symptoms being urgent, tracheotomy was performed and the air-passages explored, with a negative result. A tracheotomy tube was inserted, but respiration was not improved by the operation. The child lived about four days longer, when it died of inflammation of the laryngeal mucous membrane.

CASE XV. I was called up at two o'clock in the morning by a middle-aged lady, who had come four miles to consult me. She stated that she had a full set of false upper teeth; that she had them in her mouth when she retired the night before; that she awoke at one o'clock, choking; that she felt the teeth go down into the stomach, and that she had suffered from severe pain in the stomach since. I doubted whether she could swallow so large an object so easily, but she stated that when she went to bed the teeth were certainly in her mouth; that the bedding had been carefully examined and the whole house ransacked to find the teeth, but they were nowhere to be found; and that she was *sure* she had swallowed them. I passed a probang into the stomach, but felt nothing. I then gave her a dose of sulphate of zinc, which operated in two minutes, but no sign of the teeth. I then advised her to go home and fill the stomach with soft food, and await events. I saw nothing more of her for a month, when I called on her to ascertain what followed. She looked somewhat mortified when she told me that after her return home that night another search was made, when the teeth were found *under the bed.*

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THE TREATMENT OF TYPHOID FEVER.[1]

BY J. Y. DALE, M. D., LEMONT, PA.

You will perhaps all agree with me when I say that our art does not enable us to *cure* a fever. All that we can do is carefully to watch its development, aid nature by supporting the vital energies of the system, and be prepared to treat promptly any complications that may arise during its course, until the diseased action subsides spontaneously, which it has a tendency to do at certain regular periods. In treating typhoid fever I have become so impressed with the value of muriatic acid as a remedy that I wish to recommend it to the favorable notice of those of you who have not already given it a trial. My plan is to commence with the acid at the very onset of the disease, giving to an adult ten drops of the dilute muriatic acid of the Pharmacopœia every two hours. This is about half the ordinary dose, but a small dose is better borne by the stomach than a large one, besides being just as efficient. The acid should be given in an ounce or more of water, sweetened if the patient prefers it so, and to prevent injury to the teeth it should be taken through a straw or glass tube, or the mouth should be rinsed with a solution of soda. In mild cases, or at the commencement of the attack, this is generally the only medicine that is prescribed. I usually continue the acid through the whole course of the disease, though at the beginning of convalescence the interval between doses is increased; but I am chiefly guided by the appearance of the tongue as to the proper method of giving it. If the tongue cleans and remains moist, and the digestion is good, with no diarrhœa or abdominal tenderness, it is no longer indicated; but if the tongue becomes dry or furred, it is immediately resorted to again.

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[1] Abstract of a paper read before the Centre County Medical Society of Pennsylvania.

If headache is a prominent symptom at the commencement of the disease, cold applications to the forehead, bromide of potassium, and, in very severe cases, cups to the nape of the neck are used. Diarrhœa can generally be controlled by small doses of Dover's powder or morphia, which lessen the peristaltic motion of the intestines, and if necessary kino or some other astringent may be added. When there are only two or three evacuations in the twenty-four hours, it is best not to interfere unless the patient be much prostrated. Should the discharges be bloody I give sugar of lead, and when the diarrhœa is obstinate injections of laudanum into the rectum are beneficial. Adding lime-water to the milk given is very serviceable in diarrhœa. But I seldom need to treat this symptom specially, for reasons to be given hereafter. Sometimes constipation exists. In such cases I am very loth to give a cathartic, unless it be castor-oil, preferring to open the bowels by simple enema, to which oil of turpentine should be added if there is tympanites. In no complaint is active purgation more capable of doing harm, as I have frequently witnessed from the domestic employment of this plan at the commencement of the attack, in consequence of which the tendency to intestinal disease is greatly aggravated. If the bronchitis that is usually an attendant symptom should be severe enough to require treatment, I give wine of ipecac, which can be administered along with the acid.

It is absolutely necessary to feed fevers. The feeblest stomach will generally bear milk, which is also the most appropriate nourishment that we can supply. I make it a rule to feed my patients regularly. Half a teacupful of milk every two hours, or enough to make at least a quart in the twenty-four hours, is sufficient in ordinary cases, and if the stomach rejects it, or there is much disturbance of the bowels, lime-water should be added. Very rarely a patient is met with who cannot take milk; in such a case weak chicken broth or beef tea can be substituted. If my patients can take them, I give both milk and broth. As a general rule, patients should not be wakened from sleep for the purpose of administering medicine or food, a natural sleep being one of the best restoratives; but when a patient sleeps from sheer exhaustion, or becomes comatose, it is absolutely necessary to rouse him at least every three or four hours. In a mild case it is best to give neither food nor medicine during the night. Patients frequently disorder their stomachs by drinking too much water or other fluid at one time. A tablespoonful or two of water will quench thirst for as long a period as a cupful. If thirst is excessive, it is best to relieve it by giving bits of ice to be dissolved in the mouth.

In cases where there is much nervous prostration stimulants are specially indicated. When there are muscular tremors, a feeble, irregular pulse, and low, muttering delirium, alcohol is an indispensable remedy; but it is better to anticipate these symptoms by its timely use than to wait for their development. When we have a severe case of typhoid fever, where the nervous symptoms predominate, we ought to begin the use of stimulants, at as early a stage as they can be borne. If they give rise to headache, increase the fever, or accelerate the pulse, they should he withheld. A high temperature that continues for several days is generally an indication for the use of alcohol; but we can rarely be justified in basing our treatment on a single symptom. Large quantities of stimulants are sometimes required. I usually prescribe whisky or brandy. Wine is the most suitable for very delicate stomachs. It is important that this remedy be dispensed with as soon as possible, to prevent a patient from retaining a craving for it after convalescence.

Quinine is the best tonic in typhoid fever. It is even more than a tonic, for in it we possess a remedy that is capable of producing a specific effect on the disease. When the morning temperature remains persistently high large doses of quinine, — from ten to twenty grains, — repeated two or three times a day, will nearly always reduce it. Sometimes large doses irritate the stomach; in severe cases it can be given by enema or by hypodermic injection. I always employ quinine or the sulphate of cinchonidia as a tonic in severe cases, giving one or two grains with every alternate dose of the acid, which dissolves it. It is often necessary, on account of disturbing the stomach or increasing the diarrhœa, to add to it an opiate.

Good nursing is of the greatest value in this disease; without it the physician's efforts are often rendered useless. Invariably I try to impress upon the minds of the attendants the importance of exercising the most watchful care over the patient, and of following all my directions implicitly, explaining why the mildest case is never free from danger, and the necessity for absolute rest in bed. I also inform them that even though the worst symptoms manifest themselves we need not despair, for as long as our patient can swallow there is still hope. The principal sources of danger in fever are that the vital forces of the body may be exhausted by the effects of the disease, and from the development of local or secondary affections. In rare cases the fever poison overpowers the nervous system, causing death within the first week. If a patient dies during the course of typhoid fever in which there are no complications, he really dies of starvation; hence the necessity for careful feeding.

Several years ago I attended a girl who had typhoid fever, having been sick with it three weeks before I was called upon. Her condition passed gradually from bad to worse, until the most hopeless symptoms appeared. She lost control of her sphincters; her pulse failed at the wrist; her legs and arms, and finally her head, became cold, so that only her trunk seemed to retain any heat; she lay perfectly unconscious and motionless; her eyes were staring and glazed; her tongue was dry and stiff; her jaw fell; she had two bed sores on her back as large as the palm of my hand, extending to the bone, and her body exhaled a cadaverous odor. The only signs of life were that her heart beat and she continued to breathe. It was with the greatest difficulty that she could be made to swallow a little fluid. I directed her mother to give her all the beef essence and brandy that she could possibly force down her throat. By persevering in this course for several days she began to rally, and we finally had the satisfaction of seeing our patient rescued, as it were, from the very jaws of death.

To recapitulate: my staple remedies are muriatic acid, milk, beef tea, alcohol, and quinine. Mild cases require neither alcohol nor quinine. Judicious medication is very essential; above all things, it is necessary to avoid many drugs.

I have used the acid plan of treatment for about twelve years. During the first few years I treated only part of my patients in this way; but for the past seven years I have used the acid exclusively, and in this time I have treated more than two hundred cases of fever, of all grades of severity, from the mildest to the worst form, without losing a single patient by death in my own practice. I have never yet lost a case in which the plan of treatment indicated in this paper was commenced early in the disease and continued without intermission. The acid seldom disagrees with a patient. I have given it under all circumstances, and to patients from three years old to sixty-five, being the extreme ages in which I have met with unmistakable cases of the disease. If it disagrees with the stomach I diminish the dose, or add a little deodorized tincture or wine of opium to it. Occasionally I have found it necessary to intermit the use of it for a day or two, but this was only in cases of great nausea, or where it was not properly administered.

It is not claimed that the acid directly shortens the disease, for it is difficult to believe that a self-limited disease can be shortened, excepting by a specific remedy, which has yet to be discovered for typhoid fever. The mildest cases, however, run their course in the shortest time, and I am convinced by experience that the early and continuous employment of the acid, in connection, of course, with other appropriate treatment, prevents the worst symptoms from being developed, thus rendering the disease much less severe. The acid must exert a powerful effect upon the intestinal mucous membrane, for during its use diarrhœa seldom assumes any prominence as a symptom, and I rarely meet with tympanites, and never with the dry, brown, cracked tongue so characteristic of the disease as ordinarily treated. If the tongue gets dry, it is only after it cleans off, when it may be very red ; but it remains so only a day or two, until it begins to pale and moisten. This condition of the mucous membrane permits the greatest quantity of nourishment to be given and assimilated.

Typhoid fever is very likely to spread through a family, or even through a neighborhood, after its introduction, and on this account it is necessary to make use of certain precautionary measures to prevent its propagation. Those who are exposed to its influence are often unable or unwilling to employ the proper hygienic means to keep the tone of their systems up to a healthy standard. Ventilation, perfect cleanliness, and the use of disinfectants are indispensable ; especially is it necessary to avoid the smell of the discharges or emanations from the body of a patient, and particular care should also be taken to prevent the contamination of water or food by the excreta.

When an individual complains of the premonitory symptoms of typhoid fever, it is doubtful whether we can arrest the disease ; still it is advisable for us to make the attempt. The difficulty is that we cannot say with certainty that in a given case we have broken up what, excepting for our treatment, would have developed into typhoid fever. I have given an emetic for such symptoms with good effect. During the past season I prescribed for a number of persons with these symptoms, some of whom had been helping to nurse fever patients. I gave them at first three grains of quinine, repeated every two or three hours, until it affected the head, then reduced the dose to four or six grains daily. About half the cases recovered in a few days, and the remainder had fever in a mild form.

RECENT PROGRESS IN THE TREATMENT OF CHILDREN'S DISEASES.[1]

BY D. H. HAYDEN, M. D.

Diagnosis of Congenital Heart Disease.[2] — At a meeting of the Medical Society of London, held January 27, 1879, Dr. Sansom read a paper upon this subject. From experience at the North-Eastern Hospital for Children the author estimated the frequency of manifestations of heart disease in children under twelve years of age as about three in five hundred cases. An analysis of one hundred and thirty cases of heart disease showed an increasing prevalence in childhood until the eleventh year. Of those analyzed fifteen were considered to be congenital. The classication of those cases most suitable for clinical purposes was believed to be the following: (1.) Cases of cardiac anomaly presenting no murmurs. (2.) Those with murmur not referable to the pulmonary artery. (3.) Congenital anomaly, with pulmonary murmur. (4.) Complications with endocarditis.

Cyanosis for the most part characterizes these cases, but in some there may be no blueness, but pronounced anæmia. In cases of pulmonary stenosis in children it was pointed out that a systolic murmur generated in the pulmonary artery may nevertheless not be localized in the pulmonary area. It may be conducted to the right side and up the vessels. The explanation is that the pulmonary murmur is supplemented and reinforced by hæmic murmurs generated in the aorta and large arteries. Anæmic murmurs are by no means so uncommon in children of all ages; but they are particularly prone to affect children with malformation of the pulmonary artery. In some cases a loud venous hum is also manifest. The existence of cardiac anomaly predisposes to endocarditis, with the occurrence of valvular imperfections, but the diagnosis of lesions thus induced from those of rheumatic causation is very difficult. Rheumatic endocarditis in children may arise and progress very insidiously. The author concluded by formulating the following propositions: (1.) In cases of congenital cyanosis in which no cardiac murmur is manifest there is probably patency of the foramen ovale. (2.) In cases of cyanosis with murmur, varying in intervals, heard over the sternal ends of the third and fourth costal cartilages and intercostal space, there is probably patency of the foramen ovale. (3.) In cases of cyanosis with loud, unvarying systolic murmur, with maximum intensity, internal to the position of the apex beat, but heard also at the back between the scapulæ, there is probably imperfection of the ventricular septum. (4.) In cases of cyanosis and of marked anæmia in children who manifest a pronounced superficial systolic murmur at the base of the heart, there is probably constriction of the pulmonary artery or its orifice. Such murmur may be complicated by hæmic murmurs. (5.) In cases of congenital affection of the heart, in which there is evidence of considerable dilatation of the left chambers, it is probable that endocarditis, affecting the valves, has constituted a complication.

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[1] Concluded from page 92.

[2] Lancet, February 8, 1879.

Dr. Symes Thompson had recently had two cases of congenital defect of the pulmonary orifice, in which the subjects lived beyond puberty. Dr. R. T. Lee thought that the character of the murmur gave but little or no aid in the diagnosis of heart disease in children. It was quite possible for the foramen ovale to increase in size and the murmur to diminish in consequence, one of the chief factors in the production of congenital murmurs being the rigidity of the structures around the foramen. He regarded the maternal impressions as of considerable importance in the ætiology of these cases. Dr. Boyd, from extensive post-mortem experience, argued that the mortality from heart disease was greater among female than male children. Dr. De H. Hall considered the statement made by Dr. Sansom that pulmonary stenosis was frequently associated with tuberculosis of the lung of great interest, in view of the immunity from phthisis enjoyed by the subjects of other forms of heart disease, Niemeyer considering such immunity to be due to the lungs being gorged with blood, and consequently less prone to caseation. In pulmonary stenosis, on the contrary, the lungs are of necessity anæmic. Dr. Leared thought many cases of heart disease in adults owed their origin to some congenital defect. Dr. Allchin said that the cases of congenital heart disease that last any time are those in which there is some compensatory lesion. In acquired valvular lesion this does not occur to anything like the same extent. In reply to Dr. Fothergill, he said that a patent foramen ovale was an instance of compensatory lesion associated with pulmonary stenosis. Dr. Day mentioned two cases of extreme cyanosis without murmur. Dr. Sansom agreed with Dr. Symes, therefore, that a longer duration of life was met with in pulmonary narrowing than in cases of communication between the two sides of the heart. In adults valvular disease of rheumatic origin may arise so insidiously that it would be impossible to differentiate such cases from those of congenital origin. He thought compensation more difficult in congenital defect than in acquired disease.

Notes on Diarrhœa in Children.[1] — At a meeting of the Dublin Obstetrical Society, held April 5, 1879, Dr. Kennedy spoke upon this subject, and at the end of some interesting remarks he summarized the ideas therein contained in a series of propositions as follows: (1.) That the morbid changes found in fatal cases of diarrhœa in infants and children do not account for the great obstinacy the disease frequently exhibits. (2.) That we are therefore driven to the conclusion that the cause must be constitutional. (3.) That this constitutional state is frequently due to the strumous diathesis, and more rarely to the state known as rickets. (4.) That we must never overlook the epidemic tendency when it exists, which is a something that acts totally independent of the food, water, or milk used. (5.) That the method of feeding infants, both naturally and artificially at the same time, is to be avoided when possible. (6.) That calomel is a medicine which has fallen too much into disuse, and more particularly in what may be called the acute diarrhœa of infants, marked by greenish discharges, and in which the drug has been found to be of signal benefit. (7.) That hippo (ipecac), used a century since for the same purpose, will be found a very effective remedy in the diarrhœa of the young. (8.) That astringents are of less value than aperients in the treatment of this diarrhœa. (9.) That tonics, such as the pernitrate of iron or oxide of zinc, are often of essential service, and above all a complete change of air.

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[1] Henry Kennedy, A. B., M. B., F. K. Q. C. P. I., Physician to Simpson's Hospital, and the Whitworth, Drumcondra. Dublin Journal of Medical Science, May, 1879.

Dr. McClintock agreed with Dr. Kennedy with reference to the use of astringents. He himself had changed his practice in this respect. In the case of diarrhœa, there often was an accumulation of fæcal matter that should in the first instance be removed. There was a remedy that he had used of late years, when obliged to employ an astringent, and that remedy was oxide of zinc in half-grain doses in a mucilaginous mixture every three or four hours. The most important point in these cases was to regulate the diet and to give the strictest directions to those having charge of the child. He thought that ipecac was a most valuable remedy, and not as often employed as it should be. As to the use of farinaceous food before children are teething, it is to shunned and avoided.

The president, Dr. E. B. Sinclair, considered all starch foods injurious to the child before the teeth came. It was then a carnivor, and should get nothing but milk. The use of other foods was a fruitful source of disease.

Dr. Kennedy, in replying, said that Dr. Faussett, of Clontarf, had used shell cocoa boiled and given with half water half milk, with good effect, the child fattening on it very well. Ipecac (two grains each dose, and one dose every night for a few nights) does not act as an emetic in the majority of cases, nor is it exactly an astringent, it is sometimes found to act as an aperient.

Ophthalmic Appearances in the Tubercular Meningitis of Children.— George Garlick.[1] The ophthalmoscope discloses changes in the optic discs of about eighty per cent. of the children who die of tubercular meningitis. These changes fall under one of two heads, namely, optic neuritis, or distention of the retinal veins alone. As the discs vary physiologically in different individuals and even in the same person, the two are often not alike; progressive change is better evidence than can be obtained from a single examination. In a small proportion of cases the optic changes occur very early in the course of the disease, and enable a diagnosis to be made when the symptoms are equivocal; this is the case when the meningitis is seated chiefly about the optic commissure. But the ophthalmic changes are an important factor in the diagnosis in a much larger number of cases. The two forms of disc change, namely, optic neuritis and distention of the veins, appear related respectively to meningeal inflammation and pressure. The intracranial pressure may result from excess of ventricular or of subarachnoid fluid, and gives evidence of its presence in the anæmia of the cranial contents. The palsy of the limbs is mostly found on the side opposite to that hemisphere of the brain which presents the greatest meningeal affection. No such definite relation exists with regard to the optic discs. In many cases of tubercular meningitis which run an indefinite course, especially those which are secondary to some other advanced disease, the optic changes share the indistinctness of the other symptoms. The ophthalmoscope countenanees the idea that some cases of tubercular meningitis recover, and even in fatal cases a temporary improvement may occur in the discs. Tubercles of the choroid appear to be an uncommon complication.

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[1] Abstract of a paper read before the Royal Medical and Chirugical Society, June 10, 1879. Lancet, June 14, 1879.

Dr. Coupland confirmed from his own experience the statement as to the rarity of choroidal tubercle. In upwards of five years at the Middlesex Hospital he had not met with it more than four times, two cases occurring in 1874 being recorded by him in the Pathological Society Transactions. This did not bear out Cohnheim's belief as to the frequency of choroidal tubercle in general tuberculosis. Dr. Gowers testified to the extreme exactness of Dr. Garlick's observations, which proved how much could be learned by careful and continuous observation from day to day. Many depended too much upon a single examination, but Dr. Garlick had shown that the progressive changes were a chief feature in the diagnosis. His observation as to the distention of the optic sheath with subarachnoid fluid confirmed Graefe's statement that the optic neuritis of tubercular meningitis was always descending, a statement which has been disputed by many. It was true that Cohnheim's observations have not been confirmed in this country, but Cohnheim himself stated that choroidal tubercle occurred less frequently in connection with cases of tuberculosis with meningitis than in those without it. Dr. Barlow thought that the mechanical theory of optic neuritis would have to be abandoned, and that the condition should be looked upon in the light of affections of homologous tissues, the retina being only a prolongation of the brain. The great frequency of softening of the brain substance in tubercular meningitis, as compared with simple meningitis, pointed to changes in the brain tissue itself in the former disease. He had specimens of six cases of tubercle of the choroid; and he would be inclined to associate the choroidal affection with the disease of the pia mater, and the optic neuritis with cerebritis. Mr. Parker asked if there was a history of injury in each of the cases of recovery. In all the instances of recovery from so-called "tubercular meningitis," injury had been the starting-point. Dr. Barlow's remarks interested him, because for some time he had thought that cases of tubercular meningitis should more properly be styled "cerebritis." In microscopical examination of one case he had found both brain and spinal cord the seat of extensive small-celled infiltration, without any marked change to the naked eye. Dr. Baxter gave the result of the experience of the Evelina Hospital for the past seven years with regard to choroidal tubercle in tubercular meningitis. As a rule, there was optic neuritis, but in no single instance was choroidal tubercle found. In one or two cases of general tuberculosis without meningitis tubercles had occurred in the choroid. Drs. Coupland and Barlow said that meningitis was found in the cases they had met with. Dr. Garlick, in reply, said that there was a history of slight injury in one of the cases of recovery, but too much weight should not be placed upon histories of injury. In the other three there was no such history; in one there had been previous otitis.

Pneumatic Therapeutics in the Treatment of Diseases of Children. — J. Hauke.[1] The softness and elasticity of the thoracic walls in childhood offer a good field for this therapeutic manipulation in cases where a pneumatic treatment is indicated; and such indication is met with oftener than in adults, owing to the relative narrowness of the respiratory passages and to the weakness of the muscles. The method of administering this treatment must be such that the act of inspiration will be accomplished without the assistance of the patient, or even against its will. The author has employed a so-called "pneumatic coat of mail" (a species of shirt of air-tight material, with an opening at one end for the head, which is united to the pneumatic apparatus). Experiments on the dead body have shown that this pneumatic method can supply the place of the natural respiratory act. The thereby occurring accidents, as subpleural emphysema, filling of the stomach with gas, the author claims to avert by the application of a body band, and by the employment of a less but equally efficient thinning of air in the "coat of mail." As to the procedure itself, it is to be remarked, in short, that the air inside the "coat of mail" is made thin, by which the atmospheric air is caused to be forced into the lungs in larger amount than by an ordinary act of inspiration; then the full atmospheric pressure in the coat of mail is restored, and the expiration takes place similarly in a more energetic manner. Portions of lung which before the "sitting" showed dullness of percussion gave, after the same, full resonance. From the recorded history of cases given, these results were not lasting, and they did in no way fulfill the author's cherished expectations. In only a small number of the cases submitted to this treatment was there actual improvement. The author gives the indications for the employment of the pnuematic treatment as follows: —

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[1] Jahrbuch f. Kinderheilkunde, N. F. xiii. S. 263. Centralblatt für die medicinischen Wissenschaften, June 21, 1879.

(1.) Asphyxia of new-borns. (2.) Congenital atelectasis. (3.) Catarrhal pneumonia. (4.) Chronic stationary pleuritic effusions. (5.) Croup. The author admits that his hopes of success were not realized in this disease, but adds that all the cases were diphtheritic. (6.) Rachitis. According to the author, by this mechanical assistance to respiration the deformities to the chest wall are improved, or prevented.

PROCEEDINGS OF THE NORFOLK DISTRICT MEDICAL SOCIETY.

J. S. GREENE, M. D., SECRETARY.

A MEETING for scientific improvement was held in Roxbury, Tuesday, March 11, 1879, at two o'clock, P. M., the president, DR. ROBERT AMORY, in the chair. DR. D. B. VAN SLYCK, of Brookline, read, first, a Case of Obstinate Vomiting in Pregnancy, of which the following is a brief synopsis: The patient was a primipara, aged twenty-six years. The uterus was anteverted, and the os somewhat excoriated. After exhausting all remedial measures, including medicines and the repeated application of iodine to the os and cervix uteri, interference to terminate pregnancy became, in the opinion of Dr. Van Slyck and of Dr. Francis Minot (who saw the case in consultation), imperative in order to save the patient from death by exhaustion, and abortion was therefore procured by the introduction of sponge tents. The result was entirely successful, delivery being followed by remission, and in due time by complete disappearance of all the serious symptoms. The patient made a perfect recovery. In reply to questions, Dr. Van Slyck said that he tried oxalate of cerium in ten-grain doses; did not give hydrocyanic acid; gave one-drop doses of bromo-hydric acid and creosote. Dilatation of the cervix was not practiced in the case until it was begun and carried on for the induction of labor by the advice of Dr. Minot. A tent was kept in over night, and no ameliorations of the symptoms occurred. — DR. MECUEN, of Roxbury, expressed surprise that Dr. Minot had not advised trial of dilatation of the cervix, since he had reported cases of successful treatment of the malady by this procedure. He thought that the use of the tents in the case reported could not be regarded as a satisfactory test of the method by dilatation, because the local irritation produced by their presence might keep up the reflex symptoms. In two recent cases he had seen the patient's temperature go up three degrees in sixteen hours during dilatation of the cervix uteri by tents. If the tents had been removed and left out a few hours in Dr. Van Slyck's case, the test would have been satisfactory. — DR. VAN SLYCK thought that the direct irritation of the cervix by tents might be expected to break up the reflex irritation. — DR. H. A. MARTIN thought it generally practicable to relieve the reflex vomiting of pregnancy when excessive. Induction of labor should not be hastily resolved upon. He had never been obliged to bring on abortion. A great many things had been recommended, — some for internal use, others for application to the os uteri — and he had tried most of them. Some remedies, strong tincture of iodine, for example, would seem to have a remarkable effect in the first two trials, perhaps, and then in four or five other cases to have no effect at all. He thought dilatation in early months of pregnancy would cause danger of abortion. He had seen several cases relieved by small hypodermic injections of morphia, and with bismuth and creosote by the mouth. — DR. EMERY, of Roxbury, had found saturated solution of borax effective in a very bad case. — DR. C. E. WING remarked that, while the external os would dilate readily, it was not easy to dilate the internal os. The attempt was sometimes unsuccessful, because of the use of too large tents. In the New York Woman's Hospital the customary first size was about as large as the stem of an ordinary clay pipe. — DR. GREENE, of Dorchester, advocated the use of warm vaginal lavements for many cases of obstinate vomiting of pregnancy. He also spoke of a case where this expedient, as well as a variety of other measures, had failed to procure more than very transient relief. There was anteflexed cervix and a very rigid, impenetrable os. At the patient's own proposal, trial was finally made of vaginal injections of warm olive oil. These afforded relief, and during four or five weeks next following a fair measure of comfort was secured only by the regular use, two or three times daily, of such injections — the patient maintaining, for an hour or two after each, the dorsal decubitus necessary for effective lubrication of the os and cervix. He mentioned the case of a delicate lady, then under his charge, in the fourth month of pregnancy, where weakness and prostration, disproportionate to the vomiting, were extreme, compelling the recumbent position all the time. Profiting by his experience with the same patient in a former pregnancy, equally trying with this, he was now placing his chief trust in massage and persistent systematic feeding, and expected that these means, continued through the whole term of pregnancy, would conduct her safely through, whereas without them the worst might be feared. In this case there appeared to be no indication for local treatment, but vaginal lavements had been practiced, and had probably been of some service as auxiliary to more needful measures. — DR. VAN SLYCK said that in the case of his patient hot-water injections caused faintness, both when used during the presence of pelvic cellulitis, and afterwards, when applied as a remedy for the vomiting. — DR. GREENE said the fountain syringe should be used at low pressure, so as to secure a gentle, continuous flow of water, which should be at a temperature high in proportion to the degree of local irritation. The patient should lie upon her back, and the end of the tube should pass beyond the os into the posterior vaginal cul-de-sac.

He thought warm vaginal injections, properly used, would never cause abortion, but on the contrary might sometimes help to avert that accident when threatened.

Croup. — DR. VAN SLYCK then read A Case of Membranous Croup. The patient, a little girl of two years, when first visited presented all the symptoms of a formidable case of croup. The first treatment directed was sanguinaria and ipecac to emesis, and afterwards in smaller doses; chlorate of potash every second hour; calomel three grains, and Dover's powder one grain, every second hour; and cold water to be applied to the throat. As the patient grew steadily worse, free and prompt emesis was procured by administering three or four grains of subsulphate of mercury. The room was filled with steam by means of heated bricks placed in tubs containing water. The child was at this time very restless, the breathing very labored, and the pulse could not be counted. After a few hours, improvement began to be perceptible, and quiet sleep ensued somewhat later. The bowels had moved freely several times. The calomel was discontinued about twenty-four hours after it was begun. The chlorate of potash was continued longer. During the second night of treatment, the steam was permitted to go down — and a relapse seemed impending in consequence.

This was averted by the prompt renewal of the steam. Hoarseness and bronchial râles continued for more than a week. Dr. Van Slyck had used turpeth-mineral many times, and was satisfied that he had saved some lives by it. It acts promptly, and in most cases the cough becomes looser soon after it takes effect. He considered it a perfectly safe emetic for children two years of age, but would not give it to infants. He would not use it a second time in the same case, unless in a relapse, or after an interval of several hours. He thought the false membrane while in the formative stage was prevented from becoming organized by the use of turpeth-mineral as an emetic, followed by calomel. He had a strong belief in the efficacy of chlorate of potash in full and frequent doses as an auxiliary. — DR. SEAVERNS, of Roxbury, continued the discussion of the subject of croup by the relation of two cases. The first was a child two years of age. He first saw the patient at noon. There had been no dyspnœa until the previous night at ten o'clock. He found respiration noisy and cough ringing. Cough, he said, has this character almost never in membranous croup, but is usually husky. Dr. J. B. S. Jackson had called attention to this fact, which is contrary to the teaching of the books. In this case the ringing character of the cough was very marked. Syrup of ipecac was prescribed. At five P. M. the noisy sound was gone, but the difficulty of respiration was more decided. The obstruction increased, and the child died at midnight, thirty-six hours after the first visit. In looking up the statistics of tracheotomy in croup, he found no case of recovery of any child under one year old. A report to the Paris Academy gives a mortality of one hundred per cent. among children under two years of age. The diagnosis of croup was not always simple. In many cases one could declare confidently as between false and true croup. In the case related there was room for doubt. The child had no enlargement of the glands, and no membrane could be seen in the throat. The second case mentioned by Dr. Seaverns occurred in a child seventeen months old. First seen Saturday noon. There had been hoarseness for a day or two. He found a husky, not a ringing cough; respiration not crowing. Directed Dover's powder and ipecac alternately every second hour. He had lost confidence in steam. At ten o'clock, P. M., difficulty was not at all removed, but not increased. Next morning the same husky, croaking noise with every inspiration. Same through the day. Sunday, no râles in chest. At night, loud bronchial râles were present all through the chest, and possibly the noise of respiration had a moister character. Monday morning, bronchitis was well developed, but there was no croup remaining. The case had proved to be croupal bronchitis. Probably there was no pseudo-membranous trouble. — DR. H. A. MARTIN remarked that generally there is a degree of uncertainty in choosing our remedies, but now and then we feel sure. He never felt the certainty so strongly as in the use of that unfashionable remedy, calomel, in croup. It was his custom to give it guarded with Dover's powder to prevent purgation, and also to use inunction of throat with mercurial ointment. Many cases so treated had recovered, among them some which he had despaired of. Among all those who had recovered under calomel treatment he had never seen any bad results. This being so, he felt bound to use and advocate it, even at the sacrifice of personal reputation. Many remedies had been advocated on purely theoretical grounds, and found to be worthless. An example of this class is carbolic acid in diphtheria, which is useless except to cause a slight diminution of the fœtor. Many men both in England and America think that calomel, used rationally, will again be in favor. Formerly, guided by incorrect theories, physicians gave it to salivation, — gave to the extent of an ounce daily. This was bad. Its use was first opposed by Thompsonian quacks. Probably some doctors continue to carry it and give it to their patients under other names. In croup and chronic bronchitis calomel was *the* remedy. To a child one year old, with croup, he would give three fourths grain to one grain at intervals of one, two, or three hours, according to the urgency of the case. He used poultices and fomentations to equalize the temperature, and emetics to free the fauces from mucus, and so gain time; not for the purpose of dislodging false membrane. Dryness of mouth and fœtor of breath never fail to be accompanied by relief. In every case of membranous croup so treated, either in the expectoration or stools may be seen evidence of broken-down exudation. Some patients recovered when seemingly almost dead, and in a way to show that the recovery was the effect of the remedy. Recovery may occur in two ways. Some patients have large throats, and expel the membrane entire. Occasionally casts of a large part of the bronchial tree are expelled. In diphtheria, on the contrary, the exudation cannot be removed. The other way is by disintegration of the membrane, which first becomes thickened and softened by inhibition of fluid, and then loosened by the formation between it and the underlying mucous membrane of thin puriform matter. This change is never seen except after the administration of calomel. He thought that in true croup the experience of practical men was that the membrane did not extend above the larynx. If it did there was some complication with diphtheria. He had not seen a single instance of croup with membrane on the fauces. — DR. SEAVERNS said that in his experience of croup, which he regarded as a different disease from diphtheria, traces of membrane were generally visible in the fauces. Thought Dr. J. B. S. Jackson had mentioned that fact. — **Dr. Van Slyck** thought that in half his cases of croup he had seen false membrane in the throat. — **Dr. Waldock**, of Roxbury, considered mercury a mischievous and dangerous remedy, and not proper for common uses. He thought it should be avoided, except when under the very shadow of death. In some such cases it became a duty to use it, and he could narrate cases where patients had been saved by it when apparently *in articulo mortis.* — **Dr. Cushing**, of Dorchester, mentioned an instance where there might be doubt about diagnosis as between croup and diphtheria. It was a case of a child three years old. At the outset there was a little soreness of throat and a slight croupy sound to the cough, but the mother was not very anxious. He found the respiration somewhat impeded, and a small diphtheritic patch on one tonsil. The symptoms of croup became more pronounced, the difficulty of breathing increased, and the membrane disappeared from the tonsil. The discolored lips showed poor aeration, but the strength did not seem impaired. The mechanical obstruction to breathing increased, and death at last seemed imminent. He opened the trachea with great dispatch, for fear the breath should stop. Half an hour afterwards the patient was breathing comfortably. Next day the respirations became labored again. The tube was removed, and a cast of the trachea and the main branches was pulled out. Was this membranous croup or diphtheria? Neither pathology nor microscopy have yet settled the difference between them. Clinically there is a difference. There is depression of vital power in the one, and mechanical hindrance to respiration in the other. — **Dr. H. A. Martin** thought Dr. Cushing's case was croup, but not a typical case. He was confident there was such a disease as true inflammatory croup. Had never seen a second case of this disease in any family. He once saw croup and diphtheria at the same time in one family. A child, patient of Dr. Flint was apparently moribund. Tracheotomy was performed, and the child recovered without prostration. It had been exposed to the ordinary causes of croup, having had wet feet from playing in snow. A drain had about the same time burst in the cellar, and a brother of this patient had an attack of diphtheria, which, with more or less wavering, finally went on to very prolonged convalescence.

Jaborandi. — **Dr. H. A. Martin** wished to mention the new remedy, jaborandi, as possessing great interest. Its action was certain as a diaphoretic, and especially as a sialagogue. He had lately used it in a case of uræmic convulsions, with anasarca. The first doses had no effect. He doubled the dose to forty-five drops, and it had decided effect in fifteen minutes. Water poured in streams from the mouth and nostrils. The same result was certain to follow the use of the drug in sufficient doses, and to have powerful influence upon the unfavorable conditions. A gentleman under his notice had a chronic and very distressing dryness of the fauces from want of action of the salivary glands. Many remedies, including chlorate of potash and capsicum gargles, had been tried and proved of no use. Twenty-drop doses of fluid extract of jaborandi three times daily had given entire relief.

TRANSACTIONS OF THE AMERICAN GYNECOLOGICAL SOCIETY.[1]

This, the third volume of this flourishing society, is like its predecessors, full of practical thoughts from men eminent in the profession. It opens with an article by Dr. Goodell, of Philadelphia, upon the Relation of Neurasthenia to Womb Disease, his object being to prove that very often the "essence of the disease lies not in the sexual organs, but in the nerve centres," — a fact which cannot be too often reiterated as a warning against the specialism which is ready to rely upon merely local applications, to the neglect of the always important constitutional treatment.

Dr. Reeve, of Dayton, Ohio, next gives us a case of unusual laceration, separating a large portion of the lower attachments of the vagina, rupturing both sphincters, the child being delivered per anum, with the vulva itself remaining intact. Dr. Reeve claims that the case is unique, "as, with the possible exception of Coutouly's case, it is the only one upon record in which any form of central rupture of the perinæum, without implication of the vulva, took place in a multipara."

The following, and much the longest article, is by Dr. Sims, on the Surgical Treatment of Stenosis of the Cervix. To those familiar with Dr. Sims's writings the paper adds but little that is new. His claims as to the success of division of the cervix uteri and his own part in developing the operation are ably presented. In the discussion which followed the reader will find that the sentiment in favor of this procedure is by no means unanimous. Dr. Emmet, who claims to have operated as often as any one but Dr. Sims himself, says, "I have not known, either in my own practice or in that of any one else, a woman to have been permanently relieved" by the operation.

Dr. White, of Buffalo, follows with a case of extra-uterine pregnancy, the fœtal bones being discharged through the bladder; and Dr. Johnson, of Washington, gives an interesting case of foot-and-head presentation, with fracture of the spine in utero.

The paper by Dr. Emmet, on The Necessity for Early Delivery as demonstrated by the Analysis of One Hundred and Sixty-One Cases of Vesico-Vaginal Fistula, is of the highest value in reference to the objections so often made to the early use of the forceps. The paper, as was remarked in the subsequent discussion of it, is "just what we wish in the teaching of obstetrics."

We have next two papers upon the Treatment of Post-Partum Hæmorrhage, by Drs. Wilson, of Baltimore, and Penrose, of Philadelphia. The former relies on the hand as a curette, and the latter upon the use of common vinegar to excite uterine contraction. The discussion upon these papers deserves attentive perusal.

After an article on Dermoid Tumors of the Ovary, by Dr. Byford, of Chicago, we come to a highly practical one by Dr. Richardson, of Boston, on the Treatment of the Acute Parenchymatous Nephritis of Pregnancy. The duty of an occasional examination of all pregnant women, and, if evidence be discovered of this disease, the necessity of active treatment, are urged. If, in spite of such treatment, the amount of urine continues scanty, and "constantly lessening, no matter whether the general symptoms of danger are increasing or not, we should not hesitate at once to induce premature labor." With regard to the latter rule, we should object, as being perhaps too absolute. For the rest, we are satisfied that Dr. Richardson is right, and that no practitioner is justified in assuming that his pregnant patient is doing well without occasional positive evidence, which may be obtained with such trifling trouble to himself or to his patient.

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[1] *Transactions of the American Gynecological Society.* Vol. III. 1878. 8vo. Boston: Houghton, Osgood & Co.

Dr. Busey, of Washington, reports a case of Alternating Anterior and Posterior Version of the Uterus, perplexing in its cause and its treatment. Dr. Garrigues, of Brooklyn, contributes an admirable paper on Gastro-Elytrotomy, giving clearly and concisely the substance of all that is known of a procedure which has recently excited so much attention. The paper was prompted by the cases of Drs. Thomas and Skene, whose operations, though not original, deserve all the credit of originality, inasmuch as they have revived and placed on a firm foundation a method which had hitherto assumed no definite position. If confirmed by further experience, it must replace cæsarean section. In two hundred and fifty years there has been in New York but one case of the latter in which both mother and child were saved, while within eight years gastro-elytrotomy has been successful in three out of six cases.[1]

Pendulum Leverage of the Obstetric Forceps, by Dr. Smith, of Philadelphia, is interesting to all obstetricians, as the author argues that traction alone should be used. The weight of authority, however, so far as elicited by the discussion, was decidedly in favor of traction and leverage combined, and this will probably be the general verdict.

A lengthy paper by Dr. Campbell, of Georgia, on Rectal Alimentation in Pregnancy, gives the method a prominence which it has hardly had heretofore. A Case of Narcotism from Opium Suppositories, by Dr. White, of Buffalo, and Three Cases of Rupture of the Uterus, by Dr. Parvin, of Indianapolis; Early Delivery of the Placenta when Previa, and a Case of Extreme Anteversion and Flexion at Full Term, by Dr. Taylor, of New York; On the Treatment of Pelvic Indurations and Adhesions, by Dr. Van De Warker, of Syracuse; The Treatment of Sterility, by Dr. Jackson, of Chicago; and a paper by Dr. Bozeman, of New York, on the Relations of Retroversion and Prolapsus to Simple Lacerations of the Cervix, complete the scientific contents.

Two of the most distinguished members of the society have died during the year, Dr. Peaslee and Dr. Atlee, and of each of them appropriate memoirs are appended.

An attractive feature of the book is the discussion which ensues as each paper is read. This not only gives life to the meetings, but adds immensely to the value of the published report. It is much to be desired that this feature be encouraged and if possible enlarged to a still greater extent, as the reader will thus get the opinion of many skilled experts upon controverted points.

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[1] According to Spaeth there is not one successful case to be found in the records of the Vienna Lying-In Hospital, nor since 1844 in the Hospital at Prague. Its advantages over Porro's operation, which is not only cæsarean section, but extirpation of the uterus itself after removal of the child, requires no argument. (See Dublin Journal of Medical Science, June, 1879.)

As an appendix to the volume, we have for the first time in this, if not in any, country a complete and separate index of the obstetric and gynæcological literature of the world for the preceding year. The society and the profession are indebted for this to the courtesy and active coöperation of one of its honorary members, Dr. Billings, United States Army, in charge of the National Medical Library at Washington. A continuation of the same from year to year is promised, and as it can be found nowhere else, its importance to every author and student is manifest.

The volume, as a whole, would seem to be indispensable to every practitioner. To say that it is from the Riverside Press is equivalent to saying that its mechanical execution is as near perfection as may be, and the society owes a lasting debt of gratitude to its accomplished editor, Dr. Chadwick, for the literary and artistic supervision which he has devoted to this as well as to the preceding volumes.

BENNET ON CONSUMPTION.[1]

This is a third edition of Dr. Bennet's well-known volume, with the appendix as mentioned below, and a chapter on mountain climates. Dr. Bennet considers that there is a tendency at present to exaggerate the beneficial influence of mountain air, especially in the treatment of chronic pulmonary disease. He admits that mountain air offers great advantages, such as purity of atmosphere, freedom from noxious and malarial exhalations, a cool night temperature, purity of water, sparse population, and out-door life. All these conditions, however, can be obtained without ascending mountains. Dr. Bennet quotes the experiments of M. Coindet (*Gazette Hebdomadaire*, 1863–64) to show that diminished atmospheric pressure from rarefaction of the air is simply met physiologically by more frequent inspiration, and not by a more complete and more thorough inspiration, as is constantly asserted.

It must be borne in mind, he says, that atmospheric pressure is the only element which is nearly the same in all regions at a given elevation. All others, temperature, dryness, moisture, atmospheric calmness or motion, vary in every region examined, according to latitude, to exposure, to the nature and configuration of the soil, to the proximity of glaciers, rivers, lakes, to habitual air currents such as those which ascend valleys in warm weather, to liability to cloud, to fog, to rain. Thus generalization becomes difficult, and each region and county has to be studied by itself.

Dr. Bennet says he believes he is warranted in saying that Swiss physicians generally do not send their patients suffering with chronic chest affections to the higher mountain elevations of their country. They keep them in midsummer at elevations between two thousand and four thousand feet, at the highest. They fear the rawness and extreme dryness of the atmosphere at higher elevations in fine weather, and the constant fog, rain, and snow in bad weather. In the tropics the conditions are very different at the same elevation, the perpetual snow line varying from thirteen thousand to seventeen thousand feet, instead of being at eight thousand feet, as in Switzerland. At Quito, for instance (nine thousand eight hundred and seventy-two feet elevation), the climate is said to be warm in summer, mild and temperate in winter. The houses are large, with wide doors and windows, life being passed and occupations carried on out-of-doors.

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[1] *On the Treatment of Pulmonary Consumption by Hygiene, Climate, and Medicine.* With an Appendix on the Sanitaria of the United States, Switzerland, and the Balearic Islands. By James Henry Bennet, M. D. Philadelphia: Lindsay and Blakiston. 1879.

At the end of the volume there is some interesting information in regard to the sanitaria mentioned in the title, that about the American being derived from Dr. Walton's pamphlet, A Comparison of the European and American Climatic Resorts, Philadelphia, 1877. He reproduces Dr. Walton's conclusions, but does not think them warranted by the premises. He says the fact of physical geography to which Dr. Walton draws attention, that the mountain chains of North America all run from north to south, and allow winds from the north or the south to course through the continent without let or hindrance, points to a great difference in favor of the Mediterranean basin. Owing to this physical conformation, all American continental sanitaria, as Dr. Walton states, are liable to great variations of temperature.

Dr. Bennet calls attention to the fact that Dr. Walton does not mention the Bermuda Islands, but we think few American physicians would recommend them to consumptives, considering their climate altogether too moist.

DISEASES OF BONE.[1]

THIS neat little book contains a collection of twelve lectures delivered from time to time to the students of the Westminster Hospital, some of them having appeared in the *Lancet*, others in the *Indian Medical Gazette*. In the course of this series the author has managed to introduce his views on a very wide range of subjects connected with bone disease, some of which are certainly novel. The "scrofulous" affections of joints are regarded as non-inflammatory, the gelatinous tissue being considered a "new growth" of a "tuberculous" character; in the absorption of bone from caries the bone corpuscle is made to play a more important rôle than usually ascribed to it; necrosis may take place without suppuration, etc.

The more interesting clinical portions of the book to American readers are those chapters devoted to rickets and osteo-malacia. The degeneration of bone in old persons is well described, and we may mention here the fact that the lecturer takes decided ground against the view that there is an affection of the bones of the insane rendering them peculiarly liable to be fractured. The descriptions of osteo-sarcoma and malignant disease of bones can hardly be said to be fully up to the standard of modern pathology.

This fashion of publishing in book form lectures which have previously appeared in medical journals is, we believe, peculiar to the English. Like many "serial" novels, there is a certain lack of continuity in the plan of arrangement which renders such a collection of articles less effective in book form. We can readily imagine that with the additional advantage of patients and specimen the course must have been an exceedingly attractive one.

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[1] *Clinical Lectures on Diseases of Bone.* By C. MACNAMARA, Fel. Cal. Univ. London: Macmillan & Co. 1878.

It is to be regretted that Dr. Macnamara, with the familiarity he shows with methods of preparation, has not given a portion of one lecture, at least, to this subject. His specimens appear to have been injected with carmine, and subsequently to have been softened in a preparation of chromic acid and glycerine.

POPULAR SANITARY LITERATURE.[1]

An admirable series of "health primers," prepared by able and scientific writers, is republished by Messrs. Appleton in this country. The first five which have already appeared we commend most heartily to every busy person who wishes to know the essential laws of health without the trouble and expenditure of time which such clear, compact, comprehensive manuals save Many useful hints will be found, too, for physicians, who are often called upon for just such information as these little books give. Personal and public hygiene have begun to attract general attention in this country, also, though we were nearly a quarter of a century behind England in making a start, and Dr. McSherry's book[2] is a good pioneer in the work. He has covered a great deal of ground, and is clear, interesting, and fair in his statements. The popular audience, for whom the treatise is intended, can rely upon its correctness, and will certainly find it very profitable reading.

HABERSHON ON DISEASES OF THE ABDOMEN.[3]

Diseases of the tongue, mouth, pharynx, and œsophagus are included in this valuable and complete treatise, as well as the functional and organic abdominal affections. As the former editions have been for several years exhausted, there are several new chapters, and nearly two hundred illustrative cases, with an index, add much to the interest and value of the work.

THE NATIONAL, STATE, AND LOCAL BOARDS OF HEALTH.

The death reported as from yellow fever at Water Valley, Miss., may or may not have been such,[4] but the occurrence of a number of new cases at Memphis, a week after the last authentic case of the several which were announced two weeks ago, has so excited popular fears in that city that the people had hardly returned from their first flight before they were for a second time hastening away to places of real or fancied safety. Local boards of health and city authorities have adopted very stringent quarantine regulations, — in some cases amounting to absolute "non-intercourse;" for the scrubbing and scavenging and disinfecting of the last few months have not been sufficient to *cleanse* any of the towns, in the sanitary sense of the word, and therefore non-intercourse is the only chance of safety in those places where the suitable conditions of soil, heat, moisture, filth, and infection exist. However, few municipalities, if any, will be so absolutely unprepared to meet an epidemic, if it comes, as they were last year, and nearly all are making efforts to prevent such a calamity.

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[1] *Exercise and Training,* pp. 96. *Alcohol: Its Use and Abuse,* pp. 95. *The House and its Surroundings,* pp. 96. *Premature Death: Its Promotion or Prevention,* pp. 94. *Personal Appearances in Health and Disease,* pp. 96. New York: D. Appleton & Co. 1879.

[2] *Health and How to Promote It.* By Richard McSherry, M. D., Professor of Practice of Medicine in the University of Maryland, President of Baltimore Academy of Medicine, etc. New York: D. Appleton & Co. 1879. Pp. 185.

[3] *On Diseases of the Abdomen, comprising those of the Stomach and other Parts of the Alimentary Canal, Œsophagus, Cæcum, Intestines, and Peritonæum.* By S. O. Habershon, M. D. Lond. With Illustrations. Second American from the third enlarged and revised English edition. Philadelphia: Henry C. Lea. 1879.

[4] Since the above was written, our advices from New Orleans explain the difficulties attending a positive diagnosis.

It has therefore become so necessary for all state and local boards of health to understand exactly how far they are themselves responsible for the efficiency of the sanitary measures adopted, and what the National Board of Health can do for them, that Dr. Billings has written a letter to the president of the sanitary council of the Mississippi Valley on that subject. It is the duty of the state and local boards *in all cases* to take the initiative in preventive and restrictive measures, and they may, if they think best, enforce much more stringent orders than have been suggested to them in the general recommendations of the National Board of Health. The printed directions of the National Board have been sent very widely over the country; they are quite similar to those which have been already adopted in Europe, and provide for isolation, disinfection, medical inspection, and quarantine. The local authorities are in duty bound to do what they can in the enforcement of the directions of the National Board, and to meet the expenses of so doing so far as is possible; but if they are unable or unwilling to provide for their own safety and that of their neighbors, to the satisfaction of the National Board, *then* the board, with the consent of the president, may adopt whatever regulations they see fit, and the president *may* detail proper officers for enforcing them.

The duties of the National Board of Health are (1) to recommend the best means of preventing or restricting an epidemic; (2) to coöperate with local boards in so doing, even to expending money if necessary; (3) to supply, with the consent of the president, men and material for performing the duties of delinquent municipalities.

The country may rest assured that the National Board, the various state and local boards, the volunteer sanitary associations and benevolent societies, will do all in their power if they are called upon to fight a wide-spread epidemic. How much we can expect even from so great power, knowledge, good will, and efficiency will depend very largely upon matters which are now beyond the control of man, and must remain so until a great deal of that power has been expended in cleaning our towns.

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MEDICAL NOTES.

PHILADELPHIA.

— The hot weather of the last week or two is producing its usual effects upon infants, especially those who labor under the double disadvantage of being fed artificially, and of being obliged to remain in the built-up portion of the city. For the week ending July 5, 1879, there were reported fifty-two deaths from cholera infantum; the next week there were seventy-six; and the week just closed runs the list up to more than one hundred deaths from this cause alone. The thermometer was over 100° F. in the shade at three P. M., on July 16th, at the Pennsylvania Hospital. The death-rate would doubtless be much higher than this, had not the board of health widely distributed a series of practical Rules for the Management of Infants during the Hot Weather, which contain valuable hygienic instruction, compiled by the advice of members of the Obstetrical Society. In addition to this there are facilities for taking the children to Fairmount Park, or on the many steamboats that ply on the two rivers, which are largely appreciated by physicians. The Sanitarium on Wind Mill Island, in the Delaware River, and the Children's Hospital at Atlantic City, referred to in a recent communication, are both tested to their full capacity.

— Yellow fever is also at hand, a vessel (the Shasta, from Port de Paix) having arrived at the Lazaretto, with the entire crew sick with yellow fever, having lost the captain on their way here from the West Indies. The patients have now all recovered at the Lazaretto. If the hot weather continues, it is possible that other infected vessels may come to this port, and perhaps some cases may occur in the city; but the last experience with the disease in 1870 has impressed a lesson upon the minds of the health board that is too recent to be forgotten. A rigid quarantine will be continued, and all intercourse of suspected vessels with the city forbidden. The hygienic condition of the city, moreover, is very much better than it was at the time of former epidemics, and nearly all of the old fever-nests have been torn out. There is no fear of the disease getting a foot-hold here, and no alarm is manifested.

— Medically speaking, things are very quiet just now, and nearly all of the notables are away, following Sir Henry Holland's advice and example. There are no clinical lectures at present, and it would be too warm to attend, even if the attempt were made to deliver them.

— The friends of Professor Joseph Pancoast will regret to learn that his health has been failing for several months, and that it is now very much impaired. It is not expected that he will be able to resume the active duties of his profession. His colleague, Professor Gross, retains his health and vigor to a remarkable degree.

NEW ORLEANS.

— Dr. S. S. Herrick writes to us from New Orleans, July 15th, as follows: —

"As might be supposed, the great topic of interest in medical circles, and, indeed, among the mass of our people, is yellow fever. The recent outbreak at Memphis caused serious alarm, and our board of health immediately put restrictions on commercial and traveling intercourse with that place. By this time the alarm has so far subsided that the board, at its meeting to-day, relaxed the restrictions, and gave the president discretionary power in their enforcement.

"The alleged case at Water Valley, Miss., about three hundred miles directly north of us, which resulted fatally on the 11th inst., was investigated by me on a personal visit two days later. The history of the case was incomplete, inasmuch as the man had been sick at least three days before a physician was called; and the observations, besides, were imperfect, as there was no record of temperature nor examination of the urine, and no autopsy was made. The diagnosis of yellow fever seemed to have been based chiefly on ante-mortem jaundice and possible suppression of urine (though the catheter was not used); while, on the other hand, there was no black vomit, though vomiting had been a prominent symptom. The two physicians who were in attendance agreed upon a diagnosis of yellow fever; but I thought it more prudent to suspend judgment, and wait a few days for further developments. The panic which immediately followed the announcement of this case, and led to the precipitate removal of about sixteen families out of a population of two thousand five hundred, had then mostly subsided, as there was no appearance of more cases of a similar nature.

"About ten days ago there was some anxiety here, on account of several suspicious cases, one of which resulted fatally. The physicians in attendance were sustained by the judgment of the president of the board of health that the cases were clearly malarial in nature. All fatal cases of malarial fevers, of congestion of the brain, and of meningitis are investigated by the district sanitary inspectors, to be certain that no case of yellow fever may be overlooked.

"The sanitary condition of New Orleans is decidedly better than it was last year, owing partly to better efforts on the part of the city authorities, and partly to the liberal support afforded to the city authorities and the board of health by a voluntary association of citizens, who expect to use about thirty thousand dollars this year for sanitary improvements.

"The above has been written in haste and at some inconvenience, on account of heat and sultriness. The whole Southwest has been for weeks in great need of rain."

MASSACHUSETTS GENERAL HOSPITAL: CASES OF ACUTE RHEUMATISM IN 1878–79.

REPORTED BY V. Y. BOWDITCH, M. D.

THE use of salicylic acid and the salicylate of soda in the treatment of acute rheumatism has, within two or three years, excited so much interest that it was thought a statement of the method and of the results of treatment as now pursued at the Massachusetts General Hospital would prove of benefit. For this purpose the following twenty cases were taken from the hospital records the last nine months.

The usual form of giving salicylic acid was in three-grain pills, the majority of patients taking doses of nine grains every hour or two hours for the first two or three days, the dose being gradually diminished as the symptoms improved, or for other reasons. The salicylate of soda was always given in the form of solution, usually in doses of ten or fifteen grains every hour or two hours.

In the arrangement, the endeavor has been made to present the cases in the most condensed form possible, and at the same time to give the important features, that a fair estimate of the merits of the treatment may be made. Cerebral and gastric disturbances are mentioned, being important symptoms following the treatment in several cases.

CASE I. George T., aged forty-four, cook. Entered July 12, 1878. Frequent attacks of rheumatism, lasting from two to three months, since 1862. Five days ill before entrance. At time of entrance pain and swelling most marked in ankles and knees. Patient was ordered nine grains of salicylic acid every two hours. On the twelfth day after entrance, marked improvement; owing to nausea the acid was then omitted, and eight grains of salicylate of soda every two hours were given. Two days later, dose increased to five grains every hour, with relief from nausea. From this time on there was gradual improvement, with occasional slight recurrence of pain. Dose gradually diminished up to time of discharge, but increased at each new attack. On fifty-sixth day (eight weeks) patient discharged, able to walk stiffly. Slight nausea, but no delirium from use of acid. No cardiac murmur detected. Temperature always within normal limits.

CASE II. E. E., aged twenty-eight, wife. Entered August 17, 1878. No previous attack. Ill three weeks before entrance. At time of entrance, pain in back, and pain and swelling in both hands and wrists. Nine grains of salicylic acid every four hours were ordered. Cotton batting, with soap and opium liniment, applied to hands. Seventh day. Pain and swelling very much less. On account of noises in head, acid omitted. Tenth day. Splint and bandage soaked in alcohol and water applied to one wrist. Acid renewed. Pain relieved. Fourteenth day. Slight pain still in wrist. Acid omitted for same reasons as before. Patient was ordered ten grains of iodide of potassium three times a day. Twentieth day. Well. Slight stiffness of one wrist. No delirium. No nausea. No cardiac disturbance. Temperature normal.

CASE III. E. R., aged thirty-seven, widow. Entered September 1, 1878. Attack of rheumatism, without fever, several years ago. Did not recover for a year. Occasional stiffness of joints since. Ill four weeks before entrance. At time of entrance, pain in right hip and both legs, left shoulder and arm; inability to move without pain. Patient was ordered three grains of salicylic acid every two hours. Second day. Pain gone, except in left shoulder. Eighth day. Acid omitted, and resumed on thirteenth day. Patient remained in about the same state up to time of discharge, complaining of stiffness and slight pain in shoulders. Iodide of potassium, in ten-grain doses, was substituted for the acid, and electricity tried, without much effect. Thirty-fifth day. Patient discharged. No delirium; no gastric disturbance. Temperature normal. No abnormal cardiac symptoms.

CASE IV. B., aged thirty, carpenter. Entered September 14, 1878. Several previous attacks. Ill three months before entrance. Partial recovery. Hips, hands, and ankles swollen and painful. Patient ordered nine grains of salicylic acid four times a day. Third day. Nine grains of salicylic acid every four hours. Ninth day. Pain entirely relieved. Twelfth day. Acid omitted. No cerebral or gastric disturbance. Temperature normal. No abnormal cardiac symptoms.

Case V. R., aged thirty-two, shoemaker. Entered September 16, 1878. Two previous attacks. Ill ten days before entrance. Slight pain and swelling in right hand, knee, and toes. During stay had several exacerbations of pain in one or more joints, relieved usually in two or three days by nine or twelve grains of salicylic acid every three hours, and by wrapping joints in flannel. Deafness and buzzing in head caused by acid, but no other cerebral or gastric disturbance. Temperature 100° F. on the first four evenings; afterwards normal. Nothing abnormal detected by auscultation of heart.

Case VI. D., aged twenty-four, stone-cutter. Entered November 23, 1878. One previous attack. Ill ten days before entrance. Pain and swelling in several joints. Nine grains of salicylic acid every four hours were given, but vomited after first dose; so medicine was omitted, and resumed the following day in doses of six grains every two hours. Sixth day. Pain in joints gone. Acid omitted. An attack of pleurisy supervened. Patient not discharged for two months. Had one slight return of rheumatism, relieved in three days by nine grains of the acid given every three hours. No cerebral disturbance. Nausea present always when acid was given in small doses; vomiting with large doses. Aortic and mitral systolic souffles noticed. Temperature elevated for several weeks.

Case VII. P., aged twenty-one, housemaid. Entered December 21, 1878. No previous attack. Ill one week before entrance. Pain confined mostly to elbows, knees, and feet. No swelling. Eight grains of salicylate of soda every hour were ordered. Second day. Relief from all pain. One slight exacerbation of pain a few days later, relieved on the following day by repetition of medicine. No gastric or cerebral disturbance. Temperature normal. No cardiac symptoms.

Case VIII. Mary M., aged forty-five, cook. Entered January 2d. No previous attack. Ill nine days before entrance. Slight pain, stiffness, and swelling in hips, knees, and ankles. Patient was ordered eight grains of salicylate of soda every hour. Second day. Entire relief from pain. No cerebral or gastric disturbance. Temperature normal. No cardiac symptoms.

Case IX. M. M., aged thirty-two, laundress. Entered November 9, 1878. Similar attack two years before. Three weeks ill before entrance. Severe pain in nearly every joint; only slight swelling. Patient was ordered nine grains of salicylic acid every two hours. Third day. Pain entirely relieved. Acid slowly diminished. Omitted on fourth day. Slight muttering delirium, deafness, and "buzzing in ears" while taking acid. No vomiting. No cardiac murmur detected. Temperature normal.

Case X. M., aged thirty, domestic. Entered November 11, 1878. No previous attack. Ill three days before entrance. Severe pain all over body; unable to turn in bed. Slight swelling of joints. Nine grains of salicylic acid every two hours were ordered. Second day. Nine grains of salicylic acid every hour, and gradually diminished up to fourth day. Fourth day. Pain only in shoulders. Ninth day. Pain gone. Acid omitted. One slight exacerbation of pain, relieved in two days by usual doses of acid. Quiet delirium, deafness, and "buzzing in head" while taking acid. No vomiting. No cardiac murmur. Temperature at first 103.4° F.; gradually lowered; normal on fifth day.

Case XI. M. C., aged twenty-two, domestic. Entered December 11, 1878.

Similar attack three years before. Ill two weeks before entrance. Pain and swelling most marked in knees and ankles. Patient ordered nine grains of salicylic acid every hour. Second day. Less pain. Acid diminished to nine grains every two hours. Tenth day. Pain gone. Twelfth day. Acid omitted. No delirium, but deafness and buzzing complained of. No vomiting. Aortic and mitral regurgitant murmurs detected at time of entrance. Temperature 103.2° F. at first; normal, second day.

Case XII. E. C., aged twenty-five, stone-cutter. Entered January 14, 1879. No previous attack. Ill three weeks before entrance. Pain and swelling in right shoulder and left knee. Nine grains of salicylic acid every hour were ordered. Third day. Marked delirium, which increased; therefore on the fourth day the acid was omitted. Sixth day. Some pain. No delirium. Ten grains of salicylate of soda every two hours were ordered. Seventh day. Less pain. Some stiffness and pain remained in shoulder up to the seventeenth day, when pain entirely disappeared. No gastric disturbance. Systolic souffle developed at apex after entrance. Temperature normal.

Case XIII. C., aged twenty-one, dry-goods clerk. Entered January 20, 1879. No previous attack. Ill four days before entrance. Pain in left hip, knee, and foot. Very little swelling. Ten grains of salicylate of soda every two hours were ordered. Fifth day. Pain gradually disappeared up to this time. No gastric or cerebral disturbance. Systolic friction sound once heard at apex. Temperature 101° F. On second day, normal.

Case XIV. M. S., aged twenty-one, laborer. Entered January 31, 1879. One previous attack. Ill two weeks before entrance. Pain and swelling in nearly every joint. Nine grains of salicylic acid every two hours were ordered. Fifth day. Pain entirely gone. Acid omitted. Two slight exacerbations in hands and feet later, relieved in first case in two or three days by nine grains of salicylic acid every two hours, and in second case in same time by ten grains of salicylate of soda every two hours. No delirium or vomiting. No cardiac symptoms. Temperature at entrance 102.8° F. Normal in two days.

Case XV. M., aged thirty-eight, stone-cutter. Entered February 10, 1879. No previous attack. Ill eight days before entrance. Unable to move in bed without great pain in every joint. Patient ordered nine grains of salicylic acid every two hours. Fourth day. Pain less, but not entirely relieved. Nine grains of salicylic acid every hour. Ninth day. Patient complained of stiffness, without pain, in shoulders. Acid omitted. One slight return of pain in shoulders a few days later, which remained, while taking the acid in six-grain doses every two hours, about a week, leaving stiffness. Slight delirium while taking acid at first. Nausea, but no vomiting. No cardiac disturbance. Temperature 100.8° F. at entrance. Rose to 102° F. on second day. Normal on fourth day.

Case XVI. H. P., aged forty-one, dentist. Entered February 3, 1879. Two previous attacks. Ill two days before entrance. Pain in legs only. No marked swelling or redness. Nine grains of salicylic acid every two hours were ordered. Third day. Pain entirely gone. Deafness and nervousness caused by acid. No gastric symptoms. No cardiac disturbance. Temperature 102.8° F. at entrance. Normal on second day. Patient entered two weeks later with similar attack. Same treatment pursued, with entire relief in two days.

Case XVII. F. S., aged thirty-nine, brewer. Entered February 14, 1879. First attack eight years ago; annual returns of it since. Ill three weeks before entrance. Pain, stiffness, and swelling in nearly every joint. Patient ordered nine grains of salicylic acid every two hours. Fourth day. Pain less. On account of nausea, ten grains of salicylate of soda every two hours was substituted for acid. Fifth day. No pain. Medicine omitted. Slight returns of pain later were relieved in from two to five days by the same medicine. No cerebral disturbance. No cardiac symptoms. Temperature normal.

Case XVIII. O. W., aged twenty-five, dry-goods clerk. Entered February 19, 1879. One severe attack three years before, and occasional slight returns of it since. Ill three weeks before entrance. Pain and swelling in several joints. Salicylic acid, nine grains every two hours were ordered. Third day. Acid omitted on account of nausea and burning in throat. Pain a good deal relieved. Salicylate of soda, ten grains every two hours, substituted. Treatment unsatisfactory. Patient continued to have more or less severe pain, shifting from one joint to another, without much effect being noticed from either form of medicine. No cerebral disturbance. Mitral and aortic regurgitant murmurs very marked at time of entrance. Temperature 100.8° F. at first. Normal after third day.

Case XIX. F. D., aged twenty-seven, traveling agent. Entered January 16, 1879. Two slight attacks several years before. Ill four days before entrance. No swelling or redness of joints, but complained of lame feet. Patient ordered salicylic acid, nine grains every two hours. First day. During night slightly delirious. Second day. Wild delirium during night, and lasting thirty-six hours. Acid omitted. Patient finally quieted by large doses of chloral hydrate and bromide of potassium. From this time on, there were frequent slight exacerbations of pain in various parts of body. Patient was given cod-liver oil and iodide of potassium, and discharged well about two months after entrance. No cardiac disturbance, no nausea. Temperature 102.4° F. at entrance; normal on third day; rose again, and fluctuated for several days.

Case XX. F. M., laborer, aged twenty-eight. Entered April 6, 1879. No previous attack. Ill three days before entrance. Pain in every joint; unable to move. Salicylic acid, nine grains every hour during day, and every two hours at night. Third day. Pain much relieved. Fifth day. Acid given every four hours. Eighth day. No pain. Ninth day. Acid omitted. Deafness and nervousness while taking acid. No nausea or vomiting. No cardiac murmur.

In reviewing these cases the following facts are observed: In eight cases out of seventeen which were treated with salicylic acid, the duration of the disease from the beginning of the attack, without reference to length of treatment, was in the longest case twenty-six days, and in the shortest five days; the improvement being very marked from the beginning of the treatment. In four of these cases there were one or two slight exacerbations of pain relieved in from two to six days by small doses of the acid. Of the three patients who took the salicylate of soda only, even including the length of illness before entrance, the duration of the disease was less than twelve days in each case, the shortest time being two days. In the remaining nine cases, the duration of the disease was either six weeks and more, or was so masked by some complication that satisfactory results could not be obtained. In two of these cases there was very marked improvement after taking the acid; in one the treatment was discontinued on the second day, owing to wild delirium; in another, pleurisy supervened, masking the symptoms; and in five the treatment met with varying success, the symptoms constantly recurring and showing little improvement from the use of the acid. The length of illness before entrance in these cases varied from five days to three months. Out of seventeen patients who used salicylic acid, in five nausea and vomiting were produced; in eight, deafness and noises in the head; and in five, delirium, one being wild for thirty-six hours. Of the three who took salicylate of soda only, there was no gastric nor cerebral disturbance. In regard to the comparative merits of the treatment by salicylic acid and the salicylate of soda, a fair estimate cannot be made from these cases. In the three who were treated by the salicylate of soda, the recovery was very rapid, but in no one of them was the attack of a very severe nature.

Judging from the foregoing cases, we are justified in coming to the following conclusion: that although salicylic acid is not a specific remedy for every case of rheumatism, yet in acute cases, if the treatment be begun within a few hours, or at most a few days, from the onset of the disease, and pushed vigorously, the most satisfactory results may be obtained. Care should be taken, moreover, not to omit the treatment immediately after the cessation of pain, but gradually to diminish the dose.

SHORT COMMUNICATIONS.

THE NATIONAL BOARD OF HEALTH.

THE first number of the *National Board of Health Bulletin*, published under act of Congress approved June 2, 1879, contains the following announcement: —

"It is proper to state that the greater portion of the mortuary statistics, together with the notes from consular reports, were obtained for this number of the *Bulletin* from the surgeon-general of the United States Marine Hospital service, whose duty it has been, under a former act of Congress (April 29, 1878), to obtain and publish the same. The first number of the original *Bulletin of the Public Health*, issued under the act referred to, was published by the late Surgeon-General John M. Woodworth, July 13, 1878, and the last number by Surgeon-General John B. Hamilton (his successor in office), May 26, 1879.

"In order that no lapse should occur in the mortuary statistics, tables for each week are presented, covering the time between the last number of the *Bulletin of the Public Health* issued by the surgeon-general of the United States Marine Hospital service and the first number of the *National Board of Health Bulletin*.

The *Bulletin* will in future be issued weekly, and will be made as complete as possible; and to that end the aid of all state and municipal health officers, sanitarians, and private individuals, at home and abroad, is urgently requested. With this issue of the *Bulletin* the acts constituting the National Board of Health, and prescribing its duties, together with the rules and regulations prepared by said board, are published for the information of the public. It is also intended to publish in the *Bulletin*, from time to time, such local quarantine and other sanitary rules and regulations as may be adopted by the various state and municipal authorities throughout the United States, and it is hoped that boards of health, quarantine officers, and others will keep the board fully advised of all such rules and regulations, and of any changes that may subsequently occur in them.

"The board is especially desirous of obtaining for publication in its *Bulletin* notes of the occurrence of epidemics in any part of the United States, and due credit will be given the writer or reporter for such notes, or for information which will lead to their preparation. All communications intended for the *Bulletin* should be addressed to the National Board of Health, Washington, D. C."

ICTERUS NEONATORUM: RECOVERY.

MR. EDITOR, — In your issue of February 15, 1877, is a report by me of a case of pernicious icterus of the new-born infant which proved fatal, and which had been preceded by five others with like result, children of the same parents. My search for reports of parallel cases had then been nearly fruitless, and I wrote the article "hoping to elicit something more than I find in the books relative to the pathology and treatment of this apparently hopeless affection." I have seen nothing in any American journal on the subject since that date, but the London *Lancet* for March 1st and 8th contains excellent articles by Dr. Glaister, in which he describes a case the history of which would apply almost verbatim to mine. The number of fatal cases in the family and the manner of death — by convulsions — is the same. My object in this report is to relate the history of a subsequent case in the same family with recovery, and in which the treatment appeared to me to be effectual. Frerichs states: "So far as I am aware, there is not one case of recovery reported." He of course does not refer to cases of moderate physiological discoloration of the skin in the new-born, which are common, and which generally require no treatment. As my case appeared quite as hopeless as the five preceding had done, I venture to attribute the recovery to treatment.

The author of the *Lancet* articles, after describing his case, which proved fatal, and after giving an excellent *résumé* of what is known of the ætiology of the disease, asks, What is to be done? and adds, "Possibly a complete change in the hygienic condition of the mother during pregnancy, along with the proper treatment of any complications arising during that time, may effect something, and in the event of Mrs. A. again becoming pregnant I shall advise this course and anxiously await the result." By treating the mother only I think his anxiety would continue on to the next child.

In the case formerly reported by me I treated both mother and child, and the latter succumbed nevertheless. In my more recent case I did nothing for the mother, who in fact was perfectly healthy apparently, but treated the child vigorously, and it survived.

My notes of this case read as follows: January 11, 1878, attended Mrs. C. again in a perfectly natural labor. The child was well developed, and appeared perfectly well during the first two days. It then began to turn yellow, as had in succession the five preceding it. At the first indication of jaundice I prohibited the mother from nursing it at all. As the color continued to deepen I gave it large doses of calomel, — "cleansing calomel," — directed it to be fed on gin and milk, and kept it constantly wrapped in flannel steeped in strong vinegar and spirits. Small doses of spirits of nitrous ether were also administered twice a day. It had turned quite as deeply yellow as those which died, but did not become sufficiently poisoned to develop convulsions; the conjunctivæ gradually became clear, the disgusting color disappeared, and it recovered completely, and is now a healthy child. As the previous children had died from what appeared precisely the same condition, I think it possible that the calomel and strong acid bathing may have been instrumental in restoring the functions of the liver and skin to their normal activity; or, if the icterus depended upon the mother to any degree, which I think improbable, prohibiting it taking the breast may have been beneficial. It was subsequently restored to the breast, however, and the jaundice did not reappear.

No autopsy was permitted in the previous case, but so certain were the parents that this one would go the way of its predecessors that they had requested it in this case. Fortunately there has been no occasion for one as yet.

The various and conflicting theories of the ætiology of this affection are very clearly and elaborately stated in the *Lancet* article referred to, and need not be repeated here; but none of them appear satisfactory, as shown by the fact that there is no uniformity in the opinions of the best authorities. Tyndall has said that "theories are well, but one stubborn fact will upset a whole freight train of them." Perhaps the most common theory is that the "ductus communis choledochus" is impervious in these fatal cases, but my stubborn facts are that in my fatal case the child had before death freely passed meconium (commonly regarded as a production of the liver), and that my more recent case is alive and well, and so must have a pervious "common duct." A *correct* theory of the causation of any such obscure disease as icterus of the new-born would be an excellent guide to treatment, but so long as each new iconoclast in these hypertheoretical times strives to demolish the idol set up by his predecessors, would it not be wise to pay a little more attention to treatment, even experimental? As we have no means of determining positively whether the affection is due in any case to "suppression, non-elimination, or resorption of bile from obstruction" (the urine test being impracticable, as this secretion is always scanty in these cases), our treatment is rationally addressed to more than one organ and emunctory. If in any case the old-fashioned shot-gun prescription is justifiable, it is here. My magazine of calomel, gin, and vinegar was discharged at the liver, kidneys, and skin, and doubtless hit the mark, but the part played by each organ in relieving the little sufferer of his *bile* will probably remain a mystery.

Like the *Lancet* writer, I am in general averse to dosing new-born babes, but in an emergency I am equally averse to the modern tendency to stand by almost a passive spectator of the efforts of nature. J. O. Marble.

Worcester, *April* 23, 1879.

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YELLOW FEVER IN THE U. S. STEAMER PLYMOUTH.

A few facts concerning the condition of the U. S. Steamer Plymouth, during the winter of 1878–79, may be of interest at the present time, as some published reports concerning her are not quite accurate, or omit important points. The Plymouth arrived at Portsmouth, N. H., December 1, 1878, where she remained sixteen days, during which time the ship was heated by steam, rendering her comfortable for officers and crew. She arrived in Boston harbor December 17, 1878, and left for the West Indies March 15, 1879. During this time she was warmed by steam and occupied by her officers and crew, except for about four weeks, thirteen days of which time she was in the navy yard dry dock. For this time her officers and marines lived on shore, and her crew were transferred to the receiving ship, with their clothing and bedding. While in dock the Plymouth was fumigated three times, one hundred pounds of sulphur being used. Most, but not all, the stores were removed from the ship. The cold was such that ice formed and remained several days in most parts of the ship, but much of the time there was a fire in a coal stove in the fire-room for the use of the workmen.

Before her arrival in Portsmouth the Plymouth had seven cases of yellow fever, three of of which were fatal. On March 21, 1879, six days after leaving Boston, and without touching at any port, yellow fever reappeared, when the Plymouth started for Portsmouth. Two cases occurred, one fatal.

On her first arrival in Portsmouth the medical officer recommended that the Plymouth be put out of commission. While frost will put a stop to the progress of an epidemic of yellow fever, it is equally clear that a long-continued temperature considerably below the freezing point is indispensable for the protection of a ship once impregnated with the poison, if cold is relied on for the purpose. Medicus.

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OFFICIAL LIST OF CHANGES OF STATIONS AND DUTIES OF MEDICAL OFFICERS OF THE UNITED STATES MARINE HOSPITAL SERVICE. MAY 6 TO JUNE 30, 1879.

Ellinwood, C. N., surgeon. Detailed as member of a board to physically examine candidates for appointment as cadet in the revenue marine service, May 24, 1879. Detailed as member of board for the physical examination of an officer of the revenue marine service, June 13, 1879. Detailed as president board of examiners to convene in Washington, July 15, 1879, June 28, 1879.

Bailhache, P. H., surgeon. Detailed as member of a board to physically examine candidates for appointment as cadet in the revenue marine service, May 24, 1879.

Vansant, John, surgeon. To proceed to New Bedford, Hyannis, and Vineyard Haven, Mass., New Haven, Conn., and Providence, R. I., as inspector, May 15, 1879. Detailed as member of board for the physical examination of an officer of the revenue marine service, June 13, 1879.

Hutton, W. H. H., surgeon. To proceed to Shreveport, La., and Vicksburg, Miss., as inspector, May 17, 1879.

Miller, T. W., surgeon. To proceed to Toledo, Ohio, Dubuque, Iowa, St. Paul, Minn., and La Crosse and Milwaukee, Wis., as inspector, May 17, 1879. Detailed as member of board of examiners to convene in Washington, July 15, 1879, June 28, 1879.

Wyman, Walter, surgeon. Upon arrival of Surgeon Sawtelle, relieved from duty at St. Louis, Mo., and placed on waiting orders, May 16, 1879. To proceed to Cincinnati, Ohio, and assume charge of the service, relieving Assistant Surgeon Keyes, June 11, 1879.

Long, W. H., surgeon. Detailed as recorder board of examiners to convene in Washington, July 15, 1879, June 28, 1879.

Sawtelle, H. W., surgeon. To proceed to St. Louis, Mo., and assume charge of the service, relieving Surgeon Wyman, May 16, 1879.

Smith, Henry, assistant surgeon. To proceed to Washington, D. C., as escort to an insane seaman, June 5, 1879. Granted leave of absence for thirty days, June 20, 1879.

Godfrey, John, assistant surgeon. To proceed to Pensacola, Appalachicola, and Cedar Keys, Fla., as inspector, May 17, 1879.

Keyes, H. M., assistant surgeon. When relieved by Surgeon Wyman to proceed to St. Louis, Mo., and report for duty to Surgeon Sawtelle, June 11, 1879.

Glazier, W. C. W., assistant surgeon. To proceed to Charleston, S. C., and assume charge of the service at that port, June 20, 1879.

Cooke, H. P., assistant surgeon. To proceed to Galveston, Texas, for temporary duty during the absence of Assistant Surgeon Smith, June 23, 1879. When relieved by Assistant Surgeon Smith, to proceed to Pensacola, Fla., and assume charge of the service at that port, June 26, 1879.

REPORTED MORTALITY FOR THE WEEK ENDING JULY 12, 1879.

Cities.	Population estimated for July, 1879.	Reported Deaths in each.	Annual Death-Rate per 1000 during the Week.	Percentage of total Deaths from				
				The Principal "Zymotic" Diseases.	Diarrhœal Diseases.	Scarlet Fever.	Pneumonia.	Diphtheria and Croup.
New York	1,085,000	710	34.12	46.20	37.89	3.23	3.38	1.12
Philadelphia	—	—	—	—	—	—	—	—
Brooklyn	564,400	323	29.84	47.68	39.63	0.92	1.55	4.33
Chicago	—	243	—	47.33	35.80	3.29	0.41	5.35
St. Louis	—	187	—	33.69	25.13	—	1.60	—
Baltimore	365,000	190	27.14	41.58	33.16	3.68	2.63	—
Boston	360,000	110	15.93	18.18	13.64	0.90	7.27	1.82
Cincinnati	280,000	152	28.31	44.74	32.89	5.92	1.31	1.32
New Orleans	210,000	—	—	—	—	—	—	—
District of Columbia	160,000	118	38.45	39.83	36.44	—	2.54	—
Cleveland	—	66	—	36.36	24.24	4.54	1.51	3.03
Pittsburgh	—	—	—	—	—	—	—	—
Buffalo	—	—	—	—	—	—	—	—
Milwaukee	—	30	—	13.33	10.00	—	—	3.30
Providence	101,500	37	19.01	27.03	18.92	2.70	—	4.00
New Haven	60,000	25	21.73	40.00	32.00	—	—	—
Charleston	57,000	60	54.90	20.00	18.33	—	—	—
Nashville	27,000	17	32.83	23.53	23.53	—	5.87	—
Lowell	53,300	16	15.65	56.25	37.50	—	—	6.25
Worcester	52,500	19	18.87	10.52	—	—	5.26	10.52
Cambridge	51,400	13	13.18	30.77	15.38	—	7.69	15.38
Fall River	48,500	23	24.73	52.17	34.78	3.00	4.35	—
Lawrence	38,200	29	39.59	58.62	51.72	—	—	6.90
Lynn	34,000	14	21.48	21.43	14.29	—	—	28.58
Springfield	31,500	12	19.86	25.00	16.67	—	—	3.33
New Bedford	27,000	9	17.38	11.11	11.11	—	—	—
Salem	26,400	18	35.55	16.67	5.56	—	—	5.56
Somerville	23,350	11	24.56	45.45	18.18	0.90	—	9.09
Chelsea	20,800	5	12.54	20.00	20.00	—	—	—
Taunton	20,200	7	18.07	14.29	—	1.43	—	—
Holyoke	18,200	11	31.52	63.64	27.27	1.82	9.09	—
Gloucester	17,100	9	27.41	11.11	—	1.11	—	—
Newton	17,100	—	—	—	—	—	—	—
Haverhill	15,300	3	10.22	—	—	—	—	—
Newburyport	13,500	2	7.72	—	—	—	50.00	—
Fitchburg	12,500	2	8.34	100.00	—	—	—	—

Two thousand four hundred and seventy-four deaths were reported: 1009 from the principal "zymotic" diseases, 794 from diarrhœal diseases, 231 from consumption, 62 from scarlet fever, 58 from pneumonia, 56 from diphtheria and croup, 37 from bronchitis, 21 from measles, 19 from whooping-cough, 17 from typhoid fever, 16 from malarial diseases, 11 from cerebro-spinal meningitis, eight from erysipelas, seven from small-pox. From *bronchitis*, 16 deaths were reported in New York, six in Boston, four in Brooklyn, two in Chicago and St. Louis, one in Baltimore, Cincinnati, District of Columbia, Milwaukee, Charleston, Cambridge, and Salem. From *measles*, eight in New York, six in Baltimore, three in Brooklyn and Cleveland, one in St. Louis. From *whooping-cough*, six in New York, four in Brooklyn and Cincinnati, two in Baltimore, one in Chicago, St. Louis, and Fitchburg. From *typhoid fever*, three in Chicago, two in Cincinnati, District of Columbia, and Holyoke, one in New York, Brooklyn, Baltimore, New Haven, Charleston, and Fall River. From *malarial fevers*, 10 in St. Louis, three in New York, two in District of Columbia, one in Charleston. From *cerebro-spinal meningitis*, three in Chicago, two in New York and St. Louis, one in Providence, Lowell, and Somerville. From *erysipelas*, two in Boston, one in New York, Brooklyn, Cincinnati, New Haven, Lowell, and Salem. From *small-pox*, seven in New York.

Allowing for cities not reported, there is a considerable increase in the mortality from all causes, from the principal "zymotic" diseases, bronchitis, diarrhœa, measles, and small-pox. In eighteen of the nineteen cities of Massachusetts, with an estimated population of 863,750, the mortality from diarrhœal diseases was more than double that of the previous week; no other noteworthy change.

The meteorological record for the week in Boston was as follows: —

Date.	Barometer.	Thermometer.			Relative Humidity.				Direction of Wind.			Velocity of Wind.			State of Weather.[1]			Rainfall.	
	Mean.	Mean.	Maximum	Minimum.	7 A. M.	2 P. M.	9 P. M.	Mean.	7 A. M.	2 P. M.	9 P. M.	7 A. M.	2 P. M.	9 P. M.	7 A. M.	2 P. M.	9 P. M.	Duration.	Amount in Inches.
July 6	30.215	61	74	50	52	48	68	56	W	S	SW	4	6	13	F	F	F	—	—
" 7	30.148	61	66	55	76	89	88	84	SW	SW	SW	10	7	14	O	R	O	—	.05
" 8	29.743	67	72	61	100	90	95	95	SW	SW	SW	10	14	13	R	O	F	—	.67
" 9	29.725	74	82	65	66	37	63	55	NW	NW	N	10	15	7	C	C	C	—	—
" 10	29.690	75	85	65	84	46	60	63	W	NW	W	6	9	5	F	F	F	—	—
" 11	29.665	71	80	66	71	49	80	67	N	SE	SE	5	8	4	C	F	O	—	—
" 12	29.790	65	73	61	89	61	68	73	NE	NE	0	13	10	0	F	C	C	—	.02
Week.	29.854	71	85	50				68		SW			1474 miles.					21.5	.74

[1] O., cloudy; C., clear; F., fair; G., fog; H., hazy; S., smoky; R., rain; T., threatening.

A reported death from yellow fever in Martin, Tenn., and several more cases (number unknown) in Memphis have caused another panic.

For the week ending June 21st, in 149 German cities, with an estimated population of 7,353,339, the death-rate was 27.5, a decrease of 0.5 from the previous week, with a marked increase in diarrhœal diseases, and decrease in pulmonary diseases. Three thousand nine hundred and ninety-eight deaths were reported: 600 from diarrhœal diseases, 502 from consumption, 351 from acute diseases of the respiratory organs, 95 from diphtheria and croup, 52 from typhoid fever, 49 from scarlet fever, 46 from whooping-cough, 46 from measles, 20 from puerperal fever, four from typhus fever, one from small-pox (in Schwerin). The death-rates ranged from 14.7 in Cassel to 39.4 in Würzburg; Königsberg 36.2; Dantzic 30.1; Breslau 28.5; Munich 37.1; Stuttgart 26.5; Dresden 23.5; Nuremberg 14.9; Berlin 37.5; Leipsic 23.6; Hamburg 29.6; Hanover 16.3; Bremen 20.6; Cologne 24.5; Frankfort-on-the-Main 21.4; Strassburg 33.4; Darmstadt 17.5. Also for the same week, Vienna 28.5; Prague 39.5; Trieste 25.2; Paris 25.

For the week ending June 28th, in the 20 English cities and towns having an estimated population of 7,383,999, the death-rate was 18.3, a decrease of 0.2 from the previous week, indicating a decrease in pulmonary diseases, measles, and small-pox; an increase from scarlet fever, diphtheria, fever, and diarrhœa. Two thousand five hundred and ninety-four deaths were reported: 175 from diseases of the respiratory organs, 154 from measles, 104 from scarlet fever, 75 from whooping-cough, 46 from diarrhœa, 37 from fever, 24 from diphtheria, eight from small-pox (in London). The death-rates ranged from 12.3 in Nottingham to 24.9 in Newcastle; London 18.3; Brighton 14.3; Portsmouth 12.7; Bristol 16.4; Birmingham 15.5; Liverpool 22.2; Manchester 19.0; Leeds 19.6. In the same week, Geneva 15.2; Zurich 28.4; Basle 26.8; Lucerne 27; Vevay 11.5.

THE GYNÆCOLOGICAL SOCIETY OF BOSTON. — The one hundred and fifth regular meeting of the society will be held at the Medical Library Rooms, 19 Boylston Place, first Thursday of August, at 10.30 A. M. Members will please note change of hour. Business of especial importance and interest for the society will be transacted. Report of committee on Accidentally procured Abortion. Profession cordially invited.

HENRY M. FIELD, M. D., *Secretary.*

BOOKS AND PAMPHLETS RECEIVED. — Education of Girls connected with Growth and Physical Development. By Nathan Allen, M. D., Lowell, Mass. Read before the American Institute at its Fiftieth Annual Meeting, July 10, 1879.

The Causal Lesions of Puerperal Convulsions. Read before the Pathological Society of Philadelphia. By James Tyson, M. D.

Transactions of the Pathological Society of Philadelphia. Vol. VIII. 1879. Edited by J. Henry C. Simes, M. D. Philadelphia: J. B. Lippincott & Co. (A. Williams & Co.)

A Text-Book of Physiology. By J. Fulton, M. D., M. R. C. S. Eng., L. R. C. P. Lond. Second Edition, revised and enlarged. Philadelphia: Lindsay and Blakiston. Toronto: Willing and Williamson. 1879. (A. Williams & Co.)

Rectal Alimentation in the Nausea of Pregnancy. By Henry F. Campbell, M. D. Augusta, Georgia. (Reprint from Vol. III. Gynæcological Transactions.)

American Nervousness: Its Philosophy and Treatment. By George M. Beard, M. D. New York. 1879.

The Soft Rubber Spring-Stem Pessary in the Treatment of Uterine Flexions. Read before the Georgia Medical Association, April 17, 1879. By Henry Frazer Campbell, M. D.

National Board of Health Bulletin for the week ending June 28, 1879. Vol. I. No. 1.

Complimentary Dinner given to Professor S. D. Gross by his Medical Friends, in Commemoration of his Fifty-First Year in the Profession, April 10, 1879. Philadelphia: Lindsay and Blakiston. 1879. (A. Williams & Co.)

Fifteenth Annual Report of the Overseers of the Poor of the City of Boston for the Financial Year 1878–79.

McGill University, Montreal. Forty-Seventh Annual Announcement of the Faculty of Medicine.

Annual Announcement of Graded Course of Study in the Medical Department of Yale College, 1879–80.

Thevetia Iccotli and its Glucoside. By David Cerua, M. D. (Reprint from Philadelphia Medical Times.)

Atlas of Histology. By E. Klein, M. D., F. R. S., and E. Noble Smith, L. R. C. P. Part V. Philadelphia: J. B. Lippincott & Co. 1879.

Pocket Therapeutics and Dose Book. By Morse Stewart, Jr., B. A., M. D. Detroit. 1878.

The Future Influence of the Johns Hopkins Hospital on the Medical Profession of Baltimore. By John Van Bibber, M. D. 1879.

THE BOSTON
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THE ANATOMICAL CHANGES CAUSED BY SEPTICÆMIA AND PYÆMIA.[1]

BY E. G. CUTLER, M. D.

Septicæmia is a disease caused by changes in the blood, resulting from the absorption of the products of decomposition. The anatomical appearances after death are as follows: Decomposition is seen to commence a very few hours after death, and goes on with great rapidity.[2] Rigor mortis is frequently absent, yet we occasionally find it when all the other signs of decomposition are marked. The skin has a peculiar reddish-brown color, and punctiform hæmorrhages with petecchiæ are occasionally present. The abdominal wall becomes of a greenish color very soon after death, livid spots appear early, and sometimes emphysema is met with, which may be diffused throughout all the organs. Imbibition of the skin also appears in the course of the veins. The muscles are flabby and dark colored, and on microscopic examination we may often see a fine granular degeneration of the single muscular fibrils.

A microscopic examination of the *blood* shows that many of the corpuscles are destroyed, and that the serum is stained by their coloring matter; it is therefore thin, brownish, it has lost its power of reddening on exposure to air,[3] it rapidly discolors the tissues, and all the coagula are usually loose and flabby. Vogel,[4] Scherer, and others have found it to have an acid reaction. Bacteria have been observed in the blood,[5] but Orth [6] and Birch-Hirschfeld [7] say that their appearance is not constant, a circumstance which is explained by Koch [8] on the ground of the use of inefficient methods of examination. Bubbles of gas may sometimes be found in the blood.

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[1] Read before the Massachusetts Medico-Legal Society, June 10, 1879.

[2] Birch-Hirschfeld has seen the greatest part of the body turn green within twelve hours after death in summer. Lehrbuch der pathologischen Anatomie, page 1227.

[3] Vogel. Handbuch der speciellen Pathologie und Therapie. Virchow, Band i. page 456.

[4] Loc. cit.

[5] Collman von Schatteburg. Jahresbericht für dem. Jahre 1875, i., page 369. Virchow und Hirsch. Pasteur. Bulletin de l'Académie de Médecine, 1878. Allgemein medicinische Central-Zeitung, February 1, 1879.

[6] Compendium der pathologischen anatomischen Diagnostic.

[7] Loc. cit.

[8] Wundinfectionskrankheiten, Leipzig, 1878.

The *heart* is flabby, anæmic, soft, and on microscopic examination very fine fat drops are seen in the muscular fibrils, while in the highest degrees of this degeneration the striæ are lost. The color of the heart is pale yellow, and on section the knife becomes covered with a layer of fat.[1] This appearance, however, is sometimes absent in those cases where the parenchymatous degeneration of other organs is pronounced. There are frequently ecchymoses under the endocardium, especially in the left ventricle,[2] and the endocardium, as well as the intima of the blood-vessels, shows imbibition of the blood coloring matter. The fluid found in the pericardium and pleuræ is rarely colorless, but is usually stained with blood. The pulmonary surface of the pleura is often covered with numerous ecchymoses, the bronchial mucous membrane stained, the secretion colored with blood, and the lungs œdematous, or sometimes strewn with ecchymoses.

Usually the *peritoneal sac* contains but a small quantity of serous reddish fluid; the intestines are greatly distended with gas, and their walls may be infiltrated with serum when there is a considerable amount of exudation in the peritonæum.[3] Hyperæmia of the mucous membrane of the stomach may be found with swelling of the follicles; this hyperæmia may extend into the intestine, and be accompanied by swelling of the solitary glands and Peyer's patches; and there may be submucous punctiform hæmorrhages, while the contents of the gut are mixed with shreds of epithelium; or, in more severe cases, the intestine may contain blood.[4] The mesenteric glands are usually swollen and hyperæmic.

The *spleen* is large, flabby; the parenchyma is unusually soft, and may be even of a pulpy consistency; the color is mostly dark cherry-red or chocolate; the trabeculæ of the stroma are hidden by the swollen pulp; the Malpighian follicles are usually not sharply defined, but are indistinct, or may be hyperplastic. Sometimes, also, numerous hæmorrhages are seen standing in small groups, which are distinguished from the rest of the splenic tissue as black-red points.

In the *liver* we may distinguish the different stages of parenchymatous degeneration, and trace it from the commencing cloudy swelling of the hepatic cells up to a complete destruction of them.

The *kidneys* are ordinarily more or less swollen; the cortex exhibits the same degeneration as the liver, the epithelium of the convoluted urinary tubules being in a condition of fatty degeneration, or perhaps having fallen in pieces. The mucous membrane of the bladder may sometimes be found to be in a catarrhal hyperæmic condition, especially in cases of childbirth, but it is usually healthy.

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[1] Winckel. Pathologie und Therapie des Wochenbettes, pages 206 and 318.

[2] Winckel. Loc. cit., page 318, etc.

[3] Winckel. Loc. cit., page 283.

[4] Birch-Hirschfeld. Loc. cit.

In the *central nervous system* hyperæmia of the membranes and gray matter of the brain may be met with, though it is usually normal.

After parturition or abortion, we may find the source of infection in the genital organs, a tear of the cervix or vagina, a foul endometritis, or a localized gangrenous spot. If the disease is of traumatic origin, there are usually diffuse, bloody, or ichorous infiltrations of varying extent and depth at the seat of injury.

Birch-Hirschfeld speaks of another class of cases, in which softened, putrid thrombi, arising from a focus of gangrene, are borne off in the circulation, and give rise to embolic gangrenous spots, usually situated in the lungs. In still another class of cases there may be an inflammation of the pleura, pericardium, or peritonæum. The amount of effusion is small, and the false membrane covering the surface is thin and delicate.

PYÆMIA is a general infection, probably roused by specific organisms (bacteria), and starting from surfaces of wounds or the foci of primary purulent inflammation. It may be conveniently divided into three groups: —

(1.) Cases where there is an unexplained tendency to localization in the serous membranes, synovial membranes, and endocardium. We may say that the disease has a certain affinity to these membranes. Diffuse sero-purulent pleuritis, pericarditis, peritonitis, occurs without any local affection of the organs which these membranes cover; more rarely there is meningitis, purulent synovitis, or ulcerative endocarditis. The inflammation is apt to crop out in several serous membranes at the same time. This form is rare, however.

(2.) The second group includes those cases where the mucous membranes, and especially that of the digestive canal, are the parts chiefly affected. At the examination we find the appearances of simple catarrh of the small or large intestine, with accompanying swelling of both the solitary glands and Peyer's patches. We see in addition, not unfrequently, diphtheritic infiltration with the formation of sloughs, and a greater or less extensive loss of substance in the mucous membrane. These cases are also rare.

(3.) The third group comprises the most frequent forms of pyæmia, the pyæmia multiplex of Hueter, metastatic or embolic pyæmia. As a rule, there is venous thrombosis in the periphery of the original point of lesion; these thrombi do not become organized, but undergo softening, especially a foul softening, caused or favored by ichorous suppuration in the vicinity of the vein. Portions of these thrombi, swept away by the circulation, become wedged in the vessels of the lungs, and give rise to abscesses; and secondary thrombi may be borne thence, and produce metastatic abscesses in the heart, spleen, liver, kidneys, etc.

The following are the chief post-mortem appearances found in the different organs: —

The *skin* is flabby and pale, sometimes intensely icteric. Sudamina are not uncommon, and their contents may be purulent.[1] Small vesicles with a hæmorrhagic halo, pemphigus, hæmorrhagic spots with a yellow pustular centre,[2] and punctiform hæmorrhages[3] are recorded.[4] Leube[5] found a sphere of bacteria in an abscess cut out from the skin of a pyæmic patient just before death. Salmonsen[6] also found bacteria in abscesses of the joints in a living person, death taking place a few days later.

The *brain* and its membranes usually show no changes, yet œdematous swelling of the pia[7] is not very rare. Leube[8] met with injection of the membranes and minute extravasations of blood into the cortical substance of the brain. Waldeyer[9] and Leube[10] have observed purulent meningitis, and Braidwood[11] records metastatic abscesses of the brain. Abscesses of the brain were found recently in one of the cases at the City Hospital: they were small in size, not larger than a bean, and were situated in the cortex to the number of five or six.

Conjunctival hæmorrhages are mentioned by Leube,[12] and retinal hæmorrhages were also observed by him and by Litten.[13] Virchow[14] has found embolism of the retinal and choroidal vessels, and Meckel first described "pyæmic ophthalmia" in volume v., page 276, of the Charité-Annalen.

The *heart* is usually of normal consistency and color,[15] though Birch-Hirschfeld[16] says abscesses may be found in it in at least one third of the cases of metastatic pyæmia, on careful search. They begin as pale yellow lines or points, and a microscopic examination shows no pus, but an abundance of micrococci, single or in colonies, which frequently lie in the interior of vessels; or they may be discovered in the muscular fibrils.[17] After suppuration has occurred, the bacteria are difficult to find. Suppuration extends between the muscular fibrils, which fall to pieces, and may leave an abscess as large as a filbert. They usually form in the left ventricle, but may be found in the right side,[1] or in the papillary muscles.[2] The granular and fatty degenerations of the muscular fibrils are not unfrequently met with,[3] and numerous instances of diphtheritic endocarditis are recorded.[4] The pericardium may be covered with a fibrino-purulent membrane, as a complication of the metastatic process; or, independent of it, there may be the diffuse pericarditis already alluded to.

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[1] Anstie. Lancet, January 22, 1870, page 117. Cameron. Lancet, July, 1878, page 65.

[2] Leube. Deutsches Archiv für klinische Medicin, October, 1878, page 244.

[3] Charité Annalen, iii., page 191.

[4] Gazette hebdomadaire, No. 46, 1868. Comegys. Philadelphia Medical Times, November 23, 1878.

[5] Loc. cit.

[6] Centralblatt für Chirurgie, No. 2, 1879.

[7] Hueter. Allgemeine und specielle Chirurgie. Billroth und Pitha, page 70.

[8] Loc. cit.

[9] Virchow's Archiv, xl., page 401.

[10] Loc. cit.

[11] On Pyæmia or Suppurative Fever. London, 1868.

[12] Loc. cit.

[13] Charité-Annalen, iii., page 137. Gräfe's Archiv, xxiii. 2.

[14] Archiv für pathologiscbe Anatomie, Band ix., page 307 to 308.

[15] Waldeyer, loc. cit.

[16] Lehrbuch der pathologischen Anatomie, page 347.

[17] Heiberg. Die puerperale und pyæmische Processe. 1873.

The *blood* may be unchanged,[5] or there may be an increase in the number of the white corpuscles.[6] In a high degree of infection the white corpuscles may be very granular,[7] and bacteria are found in them.[8] In protracted cases the granular condition of the white corpuscles may be the only visible change in the blood (Birch-Hirschfeld). Laptschinsky[9] found that the red blood corpuscles did not form regular *rouleaux*, but heaps or clumps of various sizes and shapes. The single blood corpuscles often appeared swollen and a little cloudy, and their contours not as distinct as usual. Frequently, very small corpuscles, one third the normal size, were found, which were sometimes intensely colored, and sometimes very pale. Further, great irregularity in the shape has been observed. Leube[10] speaks of very numerous, small, irregularly shaped, whitish, highly refractive bodies, some of which at times moved very rapidly, and which were possibly bacteria. Bacteria have been seen by numerous observers both floating free in the serum and contained in the interior of the white corpuscles, as mentioned above.

In the *lungs* the most common change is the formation of metastatic abscesses; the lower lobe is the part usually affected, though the lower portion of the upper lobe is sometimes found to contain them. They are almost never seen in the apices.[11] They are either of the size of a bean or cherry,[12] or they are miliary. In the former case we are able to find an embolus in the pulmonary artery leading to the abscess; in the latter it is impossible to distinguish one, as the infecting substance has got into the circulation in a state of fine molecular subdivision. In the former case a combination with hæmorrhagic infarction is common. In both cases we may find bacteria within the capillaries, in the interlobular connective tissue, and in the alveoli, similar to those found at the surface of the wound and in the different secondary foci of other organs. Metastatic abscesses, both large and miliary, at first have a gray color, then they become yellow, and finally a cavity is formed with fluid purulent contents. In the periphery lobular pneumonia, due to irritation, often occurs, which sometimes terminates in softening; the abscess may thus perforate into the pleural sac or into a bronchus, both of which are rare.[1] A limited amount of œdema and injection is not uncommon. The bronchial mucous membrane is very frequently reddened, swollen, and covered with much secretion.

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[1] Heiberg. Loc. cit.

[2] Purser, British Medical Journal, August, 1877.

[3] Birch-Hirschfeld, loc. cit., and Archiv der Heilkunde, xiv., pages 193 to 241.

[4] Heiberg, loc. cit. Beckmann, Virchow's Archiv, Band xii., 1857, page 61. Purser, loc. cit.

[5] Waldeyer, loc. cit. Hueter, loc. cit. Birch-Hirschfeld, Archiv der Heilkunde, xiv., 1873, page 210.

[6] Wagner, Handbuch der allgemeine Pathologie, 1874. Birch-Hirschfeld, Archiv der Heilkunde, 1873, page 210.

[7] Birch-Hirschfeld, loc. cit.

[8] Hueter, Allgemeine Chirurgie, Cop. xvii. Birch-Hirschfeld, loc. cit. Koch, Wundinfectionskrankheiten, Leipzig, 1878.

[9] Centralblatt für den medicinischen Wissenschaften, 1874, No. 42.

[10] Loc. cit.

[11] Hueter, loc. cit.

[12] Orth, Compendium der pathologischen anatomischen Diagnostik, 1876, page 139, Herz, Ziemssen's Cyclopædia.

Changes in the *spleen* are by no means constant.[2] There may be splenic tumor, with hyperæmia and a very pulpy organ, such as is seen in septicæmia; or the consistency may be dense and the color pale. Indeed, there is sometimes an anæmic, pale yellow appearance, or a mottled look, from alternation of such pale places with hyperæmic ones. This is more especially true in protracted cases. In this hyperplastic condition the Malpighian follicles may be very ill defined; in other cases, on the contrary, they are very distinct, and evidently enlarged. On microscopic examination there is seen to be a diffuse granular cloudiness of the cells of the pulp, which may also contain micrococci, while the reticulum is found not to be increased. When metastatic abscesses are found, they are usually of the same size as those seen in the lungs, and the pus which they contain may be good, creamy, and without odor.[3] Micrococci may be observed at an early stage of the abscesses. Sometimes the spleen is found to be healthy.

Waldeyer [4] records that in twenty per cent. of his cases the *liver* was healthy. The more common changes were: (1.) Simple swelling without any degenerative processes. (2.) Simple fatty infiltration in the periphery of the acini, both diffuse and isolated. (3.) Granular and fatty degenerative cloudiness. (4.) Enlargement from retention of bile in the ducts, with or without degenerative processes. (5.) Abscesses.

Fatty infiltration in the territory of the portal vein is common to this with other diseases, and in its lighter grades is scarcely to be regarded as pathological. The most frequent change is the combination of swelling with granular cloudiness or fatty infiltration of the cells; this was observed in thirty per cent. of the cases examined. Degenerative cloudiness without swelling of the acini is very rare; it was found in only eight per cent. of the cases. Enlargement as the result of retention of bile was more common, and was always of catarrhal origin, a dense plug of mucus being detected in the intestinal portion of the ductus choledochus. Waldeyer also found at the same time with the swelling and degenerative processes a moderate increase of the connective tissue cells in the portal territory of the acini; it was never so great as to be distinguishable to the naked eye, however. Abscesses were seen in six per cent. of the cases, and as usual they were located in the right lobe. The size of the abscesses may vary from that of a pea, or even smaller, to that of a child's head (which is rare). The absence or slight amount of hæmorrhagic infarction in metastatic abscesses of the liver is very characteristic.[1] At an early stage it consists of a group of gray or grayish-yellow acini, which are not unfrequently enlarged, and whose periphery is shaded off by a yellower tint; the consistency is still normal. Gradually the acini become colored more and more yellow, their boundaries are effaced, their consistency diminishes, and a small collection of pus is formed from them; this may unite with neighboring ones, again, and form a large abscess. All stages of this development may often be seen near each other. Microscopic sections of the first stages show considerable dilatation of the hepatic capillaries, and a consequent compression of the rows of hepatic cells. The capillaries are filled with micrococci, and contain a greater or less number of white blood corpuscles, and only a few red ones. In some places capillaries are found which are full of white corpuscles, having a highly granular protoplasm, and apparently containing micrococci; and it is not improbable that the white corpuscles import the micrococci, and are destroyed by their increase.[2] During the early stages we only find isolated pus cells outside the vessels; later, they increase in number, at first in the periphery of the acini, gradually extending inwards from the portal branches, and compressing the hepatic cells more and more, till at last they become completely atrophied. If suppuration is just beginning, we observe a large collection of round cells mixed with detritus, and here and there heaps of micrococci, but the process here has advanced so far as to render it impossible to follow the successive steps.

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[1] Birch-Hirschfeld, loc. cit.

[2] Waldeyer, loc. cit. Billroth, Archiv für klinische Chirurgie. Birch-Hirschfeld, loc. cit.

[3] Hueter, loc. cit.

[4] Loc. cit.

The changes in the *intestinal tract* are few. Hueter (loc. cit.) has observed stomatitis pseudo-membranacea on the tongue, in the whole cavity of the mouth, in the pharynx, and in the œsophagus, extending as far as the cardia in protracted cases of pyæmia. Swelling and cloudiness of the gastric and intestinal mucous membranes are not infrequent. Billroth[3] has found moderate swelling of the solitary follicles and Peyer's patches, but rarely accompanied by hyperæmia. Waldeyer (loc. cit.) saw the mucous membrane in the pyloric portion of the stomach often considerably swollen and cloudy, with extension of the same change into the duodenum and upper part of the jejunum; the Brunner's glands of the duodenum swollen to the size of millet seeds, yellowish and cloudy; the entire mucous membrane of the stomach and intestine succulent, not rarely œdematous, and usually without ecchymoses or marked hyperæmia, even after profuse diarrhœa. He observed diphtheritic inflammation in the large intestine but once.

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[1] Hueter, loc. cit.

[2] Birch-Hirschfeld, Koch, loc. cit.

[3] Archiv für Chirurgie, ii., pages 325–511.

Waldeyer[1] found that in the *lymph apparatus of the intestine and mesentery* the gross and microscopic appearances were those of a simple, ordinarily dense hyperplasia, sometimes with localized fatty degeneration marked by circumscribed yellowish spots on section of the glands. The mesenteric glands in the ileo-cæcal angle are distinguished from the others by their size. It is but seldom that they appear pulpy or juicy; in most cases they are dense, smooth on section, and have no points springing forth. In connection with this there is often a swelling of the lymphatic intestinal follicles, especially about the ileo-cæcal valve, not unfrequently accompanied by small ecchymoses.

Metastatic abscesses have been found in the *pancreas*, though rarely. (Birch-Hirschfeld.)

By far the most frequent change in the *kidneys* is a more or less considerable swelling, with great cloudiness and moderate fatty degeneration of the portions of convoluted tubules between the glomeruli and the looped tubules of Henle.[2] Eighty per cent. of the cases examined by Waldeyer gave this result. Much more infrequent are simple cloudiness without swelling, simple hyperæmia, and the normal appearance. The density of the kidneys is very variable; sometimes soon after death they are quite flabby and easily broken down, other evidences of cadaveric change being absent: sometimes they are decidedly firm and solid. The cloudiness is mostly of a grayish-yellow or bright yellow color, the tinge changing naturally very much with the amount of blood. Often when there is much swelling and cloudiness small ecchymoses and hæmorrhages into the urinary tubules are observed. Both kidneys are alike affected, and some degree of change is never absent when there is a considerable affection in other organs. The alterations correspond mostly with changes in the liver. Metastatic abscesses occur chiefly in the cortex (Birch-Hirschfeld), for the reason that the particles which excite the inflammation have got into the renal circulation in a very finely divided state, and therefore first become wedged in the capillaries of the cortex, or perhaps in the Malpighian bodies. If the particles, on the other hand, are larger, — for example, fragments of thrombi, — the abscesses are located between the pyramids corresponding to the distribution of the larger branches of the renal artery. In cases of the sort first described, the cortex is often interspersed with an enormous number of abscesses, which, on stripping off the capsule, appear on the surface of the kidney as round gray or yellow spots, often scarcely as large as the head of a pin, surrounded by an areola of injected vessels. If the process is not too old, especially in the smallest gray foci which are still firm, we may see in the centre of the thick purulent infiltration a vessel plugged with bacteria. Later, when the spot has softened, it is no longer possible to find the parasites. Confluence of these small points forming large abscesses is rare, because the life of the patient is not sufficiently prolonged. The large metastatic abscesses in the pyramidal portion usually show the same striped form as that seen in interstitial purulent nephritis.[1]

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[1] Virchow's Archiv, xl., page 405.

[2] Waldeyer, loc. cit.

The *uterus* is unchanged, except in those cases where it forms the starting-point of the disease. This usually occurs as a sequel to the puerperal process, and we find either a metrophlebitis or a metrolymphangitis. In the former case the metritis takes its point of departure from the location of the placenta, causing an ichorous decomposition of the thrombi in the placental veins; these thrombi may increase from here to the veins of the uterine wall, the plexus pampiniformis and the spermatic veins. As these thrombi undergo the same degeneration, they may be swept forth by the circulation and plug vessels in distant organs, giving rise to metastatic abscesses, just as in ordinary wounds. In the latter case the inner surface of the womb is covered with a foul-smelling, brownish slime; or, when this has been cast off, we find an extensive yellow layer consisting mostly of pus cells. In the cervical portion we see deep ulcers and fissures covered with discolored sloughs, and may often trace the advance of the inflammation into the deeper portions. Ordinarily the inflammation tends to spread in the intermuscular tissue, evidently following the lymphatics. The larger lymphatics appear as yellow stripes or round vessels, according to the direction of the section; their contents are purulent. The pus is not always confined to the interior of the lymphatics; a purulent infiltration may be found in the neighborhood, also, and a microscopic examination shows that there is an extensive infiltration of the intermuscular tissue by pus cells, and fine granular elements. The muscle cells are at the same time swollen and filled with dark granules. The inflammation is continuous from the uterine wall over into the pelvic connective tissue, and the lymphatics may be traced into the broad ligaments over the pelvis, or into the abdominal wall. The inflammation invades the peritonæum very early, and is seen at the sides of the uterus first. (Birch-Hirschfeld.)

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[1] Abscess does not always follow when bacteria get into the renal vessels with the blood. They have sometimes been found in cases where we must assume that the parasites came from the blood, and yet where no metastatic renal abscesses were present. Orth, in Virchow's Archiv, lix., called attention to the fact that in many cases of pyæmia, where there were no renal abscesses, fine yellow lines were found in the points of the pyramids, which a microscopic examination proved were straight urinary tubules filled with micrococci.

Acute purulent myositis is of frequent occurrence. At first, an inflammatory œdema is found in the loose intermuscular connective tissue; the spaces between the muscles appear gray, then become brawny, and finally yellowish and purulent. In most cases of phlegmon the inflammation is confined to the intermuscular connective tissue, the perimysium appearing to afford a certain protection against the advance of the inflammation, so that the muscle itself suffers only through injury to its nutrition. For a time, on cross section, the muscle is found to be divided up by yellow lines or bands of purulent infiltrated connective tissue. Later, the muscle is also changed: it becomes softer, paler, and more brittle; cloudy swelling and fatty degeneration occur; sometimes also a more or less extensive waxy degeneration; while the connective tissue of the muscle is thickly infiltrated with pus cells. It frequently happens that the inflammation does not invade the muscle *in continuo* from the infected spot, but that the myositis occurs in a remote place. This was very beautifully illustrated in a case at the City Hospital recently, the source of infection being the rectum, and the myositis appearing in the right rectus abdominis.

The *peritonitis* of pyæmia is usually of puerperal origin.[1]

When the *joints* are implicated, we find in some cases merely an increased amount of synovia; in other cases the contents are purulent. Sometimes, when pus is present, the synovial membrane and cartilage are uninjured; at other times there is complete disorganization, and the bones forming the joint are exposed and at times necrotic.[2] The inflammation is usually confined to the synovial membrane;[3] it is somewhat thickened and reddened, and the cartilage underneath may remain either unchanged, or become a little cloudy.[4]

A comparison of pyæmic pus with healthy pus[5] shows that the corpuscles of the former are of very variable size; their contour has lost sharpness and regularity; they often appear prickly or gnawed. Their protoplasm is at the same time darker, gray-blackish, and appears more coarsely granular than the cells of good pus. This granulation is finer than that caused by fat granules, and further may be readily distinguished from it chemically A further difference consists in the considerable formation of vacuoles, so that only a small ring of protoplasm is left in many cells. Birch-Hirschfeld considers that the granulation comes chiefly from the penetration of bacteria into the protoplasm, because, after addition of strong acetic acid and destruction of the cells, the granules insoluble in ether and caustic potash, bacteria, are strikingly more numerous in the serum. This pus is said to have a peculiar odor, different from that of decomposition.

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[1] Bauer, Ziemssen's Cyclopædia.

[2] Bryant's Surgery.

[3] Holmes, System of Surgery.

[4] Hueter, loc. cit.

[5] Birch-Hirschfeld, Archiv für Heilkunde, 1873, xiv., page 193.

NOTES ON THE SUMMER CLIMATE OF THE WHITE MOUNTAIN VILLAGE OF BETHLEHEM.

BY W. H. GEDDINGS, M. D.

Although carried to a greater excess by our American people than by any other, the custom of migrating during the summer from the cities to the mountains and to the sea-shore has existed for centuries among the civilized nations of Europe. It was at Stabiæ that the illustrious Galen, in the latter part of the second century, established the first sanitarium of which we have any record for the treatment of pulmonary phthisis; and although, owing to the many modifications our ideas have since undergone in regard to the treatment of that disease, few cases are now sent there, the Stabiæ of the ancients, under the more familiar name of Castellamare, still continues to attract hundreds of visitors, who, amid the most charming surroundings, enjoy the same delicious sea-breezes that over sixteen hundred years ago served to give renewed health and vigor to the enfeebled constitutions of the Roman aristocracy.

The introduction of steam as a motor power, by facilitating rapid intercommunication, has caused people to congregate in certain centres, and thus has given a tremendous impetus to the growth of cities. This unnatural massing together of individuals, with the incessant overstrain to which both mind and body are subjected, begets a train of evils, the remedies for which are rest and pure air. If this was necessary to the old Romans, whose life was one of dignified leisure, how much the more so is it to the energetic business man of the nineteenth century, who begrudges the fifteen or twenty minutes devoted to the bolting of his midday meal. What was formerly a luxury for the rich has now become a necessity for all, and it is with unfeigned pleasure that we from time to time note an effort on the part even of our charitable institutions to provide for the health and well-being of a portion of their inmates by sending them for a few weeks into the country. A noble work of this kind, and one well worthy of imitation and generous support, is the Floating Hospital of St. John's Guild, which every summer gives to thousands of poor children an opportunity for enjoying, if only for a brief period, the beneficial effects of sea-air. Another example of what may be accomplished with limited means is afforded by the annual excursions of the American Institute, by means of which our hard-worked and poorly paid teachers are provided, at a moderate cost, with a couple of weeks' recreation in some section of country where, amid the beauties of nature, they may for a brief while enjoy the luxury of breathing in the fresh, pure air. Last year they selected the White Mountains, and, according to *The Echo*, a sprightly paper devoted to the interests of that section, no less than five thousand persons connected with the Institute availed themselves of its privileges. The great question of the season, and one which is now recurring to the minds of thousands, is where to spend the summer, whether in the mountains or on the sea-shore. In regard to the choice of a locality, although by no means simply a matter of taste, the selection of a sea-shore resort is beset with but few difficulties compared with those which we encounter when we find it advisable to choose for our patients a summer home in the mountains. The frequent occurrence of typhoid fever and other diseases necessitates careful inquiry as to the nature and efficiency of the drainage. The location of the place, whether on the summit of a hill, on its brow, or in a valley, the exposure of the houses occupied by visitors, and the quality of the food provided, are all points not less important than the character of the climate.

The writer proposes, in the following pages, to furnish some information upon these points in regard to the White Mountain village of Bethlehem; not because he considers that point superior to the hundred and one mountain resorts now presenting their claims for patronage, but because he has had some opportunity of studying its topography and climate.

Bethlehem corresponds to a class of resorts in Southern Germany, particularly in the Austrian Alps, to which the appropriate name of "Sommer Frischen" has been applied, and of which the lovely village of Aussee, in Styria, is a fitting example. They are usually of moderate elevation, the air is cool and refreshing, and not infrequently baths and mineral springs are added to their climatic attractions.

Situated at an elevation of sixteen hundred and fifty feet above the sea, on a sort of table-land, with mountains in the rear, and overlooking the valley of the Ammonoosuc, two hundred and sixty-three feet below, the village of Bethlehem commands one of the most extended and varied views to be met with in the White Mountain district. To the north may be seen a succession of hills, with the Green Mountains of Vermont in the distance, while to the eastward there is a fine view of Mount Washington and his lofty compeers. The village consists almost exclusively of a long drawn out, smooth, and well-kept street, upon which are located the hotels and boarding-houses, which, with a few stores, constitute the town. This street is provided with a plank walk, extending from the Maplewood Hotel to the Alpine House, affording a magnificent promenade at least two miles in length. Arrangements have been made to water this street, thus doing away with the dust, which was formerly so great an annoyance. The houses are all of wood, and, being designed only for summer use, are lightly built. The chief buildings are of course the hotels; and of these there are two, the Maplewood and Sinclair houses, capable of accommodating between them some seven or eight hundred guests. Both of these hotels provide an excellent and abundant table, a matter of considerable importance to one's comfort and well-being, when the appetite is rendered all but ravenous by the stimulating air of the mountains. The system of drainage is most excellent, and the fact that not a single case of typhoid fever has occurred at either house since its opening affords ample proof of its efficacy. The pipes, which are all properly trapped, empty into large cement mains, by means of which the sewage is conveyed down the side of the hill into the Ammonoosuc River. The fall, of over two hundred feet, is of itself amply sufficient to secure thorough drainage; but this is made doubly sure by flushing the main pipes with water from the mountain springs and streams above the town. The drinking-water, which is as clear as crystal, and so cool that the addition of ice is quite unnecessary, is conveyed to the town from the neighboring hills by means of a system of pipes. The soil is rough and rocky, and where unimproved is covered with projecting bowlders. It is remarkably dry, the situation of the town on the side of the hills admitting of such rapid drainage that mud is a rare sight.

Temperature. The air of Bethlehem during the summer season is cool and refreshing. In the absence of any more extended series of meteorological observations, I can only give the results of a single season, extending from July 1 to September 8, 1878: —

The mean temperature of July was 70.39° F., that of August, 67.51° F., and for the whole period from July 1st to September 8th, 68.78° F. It would be difficult to imagine a more agreeable summer temperature than this, or one better suited for the class of invalids which should be sent to Bethlehem.[1]

I have compiled the following table from several volumes of the Annual Report of the United States Signal Service, for the purpose of demonstrating that the air of Bethlehem during the summer season is cooler than that of the principal summer resorts of the United States: —

Mean temperature of Bethlehem	68.95° F.
" " " Cape May	72.43° F.
" " " Atlantic City	71.89° F.
" " " Long Branch	71.32° F.
" " " Newport	71.95° F.
" " " Denver	72.96° F.
" " " Colorado Springs	71.75° F.

The average morning temperature at seven A. M. was 65° to 69° F., at two P. M. 75.07° F., and at nine P. M., 66.35° F., thus giving a moderate diurnal range of 9.38° F., a degree of equability rarely met with in mountainous districts; the absolute range for these months at Denver, Colorado, as recorded by self-registering instruments, being 30.37° F., or three times as great as at Bethlehem. Making due allowance for the fact that the Bethlehem observations do not give the absolute range, but that of the observations taken at seven A. M., two and nine P. M., we may safely state that the daily range is at least twice as great at Denver as at Bethlehem. The highest temperature observed in July was 90° F. on the 2d, and the lowest 55° F. on the evening of the 22d, showing a monthly range of 35° F. for that month. In August the highest observation was 80° F., the lowest 54° F., the range for the month being only 26° F. Rain fell on seven days in the month of July, and on thirteen in August; but it should be stated that on many of these days it was in the form of passing showers of very short duration. The amount of rainfall was not measured.

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[1] It should be remembered that these figures refer to the summer of 1878, during which an unusually high temperature prevailed over the United States.

Owing to the absence of proper instruments, no hygrometric observations were taken, but, judging from popular signs alone, I should class the climate of Bethlehem as moderately dry. Severe storms occur occasionally, and high winds are not infrequent. Bethlehem, being located west of high ranges of mountains, is well protected against easterly winds, as is evident from the following figures, giving the direction of the wind during the months of July and August, 1878: —

S. W.	67	N. E.	7
W.	62	N.	4
S.	20	S. E.	3
N. W.	19	E.	3
	168		17

Classified according to their physiological effects, the first column contains those winds which may be regarded as conducive to health and comfort; while those of the second are usually looked upon as potent factors in causing disease, or in aggravating the sufferings attendant upon preëxisting chronic affections. It appears from the above figures that the favorable winds at Bethlehem preponderate over the unfavorable in the proportion of ten to one. The air of a place should not be too still, a certain amount of movement adding to its tonic effects and removing from it noxious gases, miasmatic and other impurities, which accumulate whenever its free circulation is interfered with. Easterly winds are undesirable, on account of the increased cloudiness and rain with which, in the eastern portion of our continent, they are usually associated.

In summing up the results of the imperfect observations I have been able to present, it will be found that the summer climate of Bethlehem is cool, and consequently tonic in its character, liable, like all mountain climates, to sudden changes; but that for all this the daily range of temperature is remarkably small, that it is moderately dry, and that the prevailing winds are of a pleasant character. People are usually sent into the country in order that they may pass the greater part of their time in the open air, and in selecting a health resort for invalids the preference will naturally be given, other advantages being equal, to the place in which the climate permits them to remain the greatest part of the day out-of-doors. With a view to affording information on this point, I have prepared the following table, which shows the proportion of the day that the invalid was able to be in the open air during July and August, 1878 : —

	Whole Days.	Three-quarter Days.	Half-Days.	Quarter Days.	No part of the Day.
July	22	5	1	0	3
August	25	2	4	0	0

In other words, out of sixty-two days an invalid could with safety have remained out throughout the whole of forty-seven, and a portion of twelve ; while out of the whole number of days there were only three on which the weather was of such a nature as to necessitate his confinement within doors during the whole day. In preparing this table, in addition to rain, very cool and windy weather was taken into consideration. The effects of the climate upon invalids appeared, as far as my limited experience permitted me to judge, most excellent ; but as no journal was kept, it is impossible to give any accurate idea of the number benefited. Among seventy-five cases that came under my observation not one died at Bethlehem ; and in only two instances, one a lady with colliquative diarrhœa, and the other a case of hepatic abscess emptying into a bronchus, was it necessary to send the patient home as hopeless, or as unfitted for the climate. Four cases, two of consumption, and one each of asthma and rheumatism, neither gained nor lost. Two cases of consumption improved rapidly : one patient gained ten pounds ; and in case of the other, in whom the disease was in its incipient stage, the physical signs detected by his physician had all but disappeared when I last examined him. It is but fair to state, however, that many of the above seventy-five cases were not of a serious character.

The exemption from hay fever enjoyed by Bethlehem is so well known as to render a notice of it in this paper superfluous. It was only occasionally and at long intervals that I heard of an attack of this affection occurring in the village, and in every case into which I inquired the patient had brought it on by visiting some place in the neighborhood. I also heard that cases had been known to occur in the village itself, but every one of them could be traced to carelessness in allowing the *Ambrosia artemisiæfolia*, to which the hay fever is by many attributed, to grow on the premises, and promptly ceased with the removal of the weed.

Indications. In general terms, Bethlehem may be considered as suited for all cases requiring a cool, stimulating mountain air. For example : (1.) *Consumption* in its earlier stages, before the patient has become too anæmic to stand the cool air of the mountains. Tendency to hæmoptysis affords, in my opinion, no contra-indication. The altitude of Bethlehem corresponds with that of the famous sanitarium at Goerbersdorf, in Silesia, where Brehmer lost only four patients from hæmorrhage out of the three thousand cases of phthisis treated there.[1] (2.) *Catarrhal affections of the air-passages* are benefited, the secretions being greatly diminished. (3.) *Emphysema* and *asthma.* (4.) *Hay fever,* as above mentioned. (5.) *Dyspepsia.* As would naturally be expected, cases of chronic gastric catarrh improve rapidly when transferred to the invigorating atmosphere of the mountains. (6.) *Chlorosis* and other anæmic affections. "The powerful and often prompt effect of pure country air upon sick and well, its tonic influence upon the feelings and nutrition, *its effect upon hæmatosis,* which is more surely proven than even that of iron, are all facts that require no demonstration, and appertain to the experience of every one."[2] (7.) *Diseases of females* requiring a tonic climate will do well at Bethlehem; but cases with procidentia and pregnant women should be warned against the jolting of the country wagons usually employed in this section when making excursions to places in the neighborhood. (8.) *Convalescents from typhoid fever* and other exhausting diseases, as well as those whose recovery from pneumonia and pleuritis has been slow and incomplete. "The convalescence from acute diseases, notably of the respiratory organs, but also of the circulatory and digestive apparatus, is retarded from week to week, until the patient has an opportunity of enjoying to its full extent the fresh air (of the country), when all at once the appetite returns, the secretions become regular, and the patient feels that he is well."[3] (9.) *Nervous exhaustion and diseases caused by overwork and confinement.* (10.) *Scrofulous and rachitic affections of childhood.* (11.) *Intestinal catarrhs* prevailing among children during the summer months. If asked what class of visitors derives the greatest benefit from a residence in the mountains, I should without hesitation reply, The children. Among the scores of little ones who spent last summer at Bethlehem, there was not a single case of serious illness.

The foregoing sketch of the climate of Bethlehem is necessarily imperfect, but the writer has thought that it would be better to present it now than to wait until more extended meteorological observations and a more intimate acquaintance with its climatic peculiarities should enable him to do greater justice to the subject. It is hoped, too, that other physicians located at our different summer resorts may institute meteorological observations of their own, and thus add to the limited knowledge we possess in regard to the climatic character of the places to which the profession are invited to send their patients. The subject is still in its infancy, and in our country the field is so extensive that it will require the labor of many observers to construct anything like a systematic work; meanwhile, contributions like the present must be regarded as so much rough but useful material, out of which some one of our successors will be able to elaborate a complete work on American medical climatology.

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[1] The consideration of altitude in connection with the treatment of consumption at Bethlehem is omitted for want of space.

[2] Braun's "Balneo therapie."

[3] Reimer, Winter Curorte, 1869, page 20.

BETHLEHEM, N. H., *July* 1, 1879.

PROCEEDINGS OF THE SUFFOLK DISTRICT MEDICAL SOCIETY.

T. M. ROTCH, M. D., SECRETARY.

FEBRUARY 22, 1879. Fifty-six members were present, the president, DR. C. D. HOMANS, in the chair.

Alcohol. — MISS LOUISE S. BAKER made some remarks on the use of alcohol by physicians as leading in certain cases to intemperance. — DR. H. I. BOWDITCH remarked that the whole subject of intemperance had already been brought before the notice of the profession, and that great caution should be used where there is a hereditary predisposition to intemperance; also, in prescribing whisky or liquors in chronic cases which do not remain under observation; but it seemed to him absurd to cut off any remedy entirely because in some instances it did harm. In support of this view, he cited the case of a patient sixty years of age, who was seized with what at first appeared to be insanity, but which eventually proved to be pneumonia, and whose life was apparently saved by taking champagne in large amounts. — DR. JAMES AYER said that the question had been asked him as to how many persons he had made intemperate; he had answered that he knew of no case, and that he thought that the profession were honest enough to refuse alcoholic stimulants where it is asked for and not needed. He felt sure that life is often saved by it. He also remarked that he was very much pleased with the address, but that we should not be blamed where we are not at fault.

Thrombosis. — DR. F. H. DAVENPORT read a paper on A Case of Thrombosis following the Operation for Laceration of the Cervix. The patient had had symptoms of uterine trouble since the birth of her first child, six years previously. She was found to have a laceration of the cervix of the second degree, and was operated on at the Free Hospital for Women. The operation was successful, and she left the hospital in three weeks. A few days later thrombosis of the left external saphenous vein occurred, accompanied by pain, swelling, numbness, and some fever. In a few days most of the symptoms were relieved, but the œdema persisted for several weeks. Dr. Davenport spoke of the safety of the operation, as shown by the experience of Dr. Emmet, its originator, who in more than two hundred cases has had but one death and one case of pelvic cellulitis, and the statistics of the New York State Woman's Hospital, which show equally good results. Dr. Davenport also referred to the tendency to operate in cases where it is not necessary, and without due precautions, and recommended care in the selection of cases and in avoiding complications. Though this is the first case on record of this trouble following the operation, analogous cases are not rare. They were considered by Dr. Davenport to be primarily cases of thrombosis, the result of two factors: first, a peculiar condition of the blood, by which it is liable to coagulate; and, secondly, a direct extension of the thrombosis from some point of absorption. Phlebitis, if present in such cases, is secondary. — DR. BAKER remarked that the danger may be greater than we imagine, and that to insure success we must take precautions, as in other operations.

Dilated Bronchi. — DR. ELLIS reported two cases of dilated bronchi: —

CASE I. *Chronic Bronchitis with Dilatatation of the Bronchi.* — Although the duration of this case was eight years, it was under observation at certain times only, when acute exacerbations called for relief. The records kept at these times have been condensed, in order to render the points clearer and avoid tedious details.

The patient was a married woman, forty years of age. Her mother was said to have died of consumption, but no other member of the patient's family had shown any sign of that disease. With the exception of a cough, which, though not very severe, had excited anxiety, she had enjoyed average health.

On January 14, 1871, though not feeling well, she went out, but was soon obliged to return, with headache, chills, and fever, followed by pain in all parts of the body, loss of appetite, and nausea. The cough became troublesome, and was accompanied by the expectoration of grayish viscid mucus. No apparent dyspnœa, and no pain when seen on the third day. Pulse 108. For about a week the cough was very severe; for another week it was somewhat mitigated; then began to improve decidedly; but at the end of a month, when convalescence was sufficiently established to render daily visits unnecessary, it was still quite marked. The expectoration was abundant, muco-purulent, and at one time, but twelve days after the beginning of the attack, contained a portion which was slightly rusty in color, though this was not mentioned afterwards. At the end of a fortnight, when the cough began to abate, the expectoration diminished, in a few days was less purulent, and finally became quite moderate. The respiration was at first not labored, about 28; at the end of a fortnight rose to 40 or more; then gradually declined, until there was no apparent dyspnœa in the middle of the third week.

When first seen, there were no positive morbid physical signs, but subcrepitant râles soon made their appearance in the lower half of both backs, and were very marked for ten or twelve days, when they diminished, but never disappeared, being heard at the bottom of the back at the last visit. These were accompanied, in the lower half of the left side, by bronchial respiration and bronchophony, which increased in intensity for two or three days, when dullness became decided. The bronchial respiration and bronchophony began to diminish in about a week after they appeared, and in twelve days more were absent.

The pulse was about 100 for the first few days, gradually rose as the disease in the lung developed, and at one time was 136; but it rarely rose above 120, and so continued till the twentieth day, when it fell again to 100, and remained there as long as the patient was under observation. The temperature at first was 100° F., reached 103° F. or 104° F. when the disease was at its height, afterwards fell, and on the twentieth day was normal, though there was a slight rise once afterwards. The nausea soon ceased, and as the thoracic symptoms declined the appetite improved. The bowels were frequently constipated, owing perhaps to the use of opiates. In the early part of the illness there was much sleeplessness, but this became less and less troublesome, as the disease declined. Though there was considerable loss of flesh, the strength was not so much affected as would be expected under the circumstances, she having walked down-stairs at the end of the first week, and being able to sit up at times afterwards. After the violence of the disease had passed she gained slowly, but continued feeble, and when seen last the subcrepitant râles were very marked.

During the succeeding two years, a part of the time was passed in the south of Europe and in a voyage to the Azores. The cough persisted, and she had the appearance of being affected with serious disease, but there was no opportunity for ascertaining the real condition of the lungs.

She was again seen on March 30, 1874, having waked in the morning, five days before, with headache and chills, followed by fever. She went down-stairs to breakfast, however, but was soon attacked with severe pain in the right mammary region, which gradually diminished, and was hardly felt at the time of the visit. Her appearance was not particularly changed. An examination of the chest showed subcrepitant râles in the right side posteriorly. This attack was of but short duration, and was probably prolonged by a sore throat.

In March, 1876, there was another acute exacerbation, of short duration, in which the same physical signs were found.

Then followed another long period, characterized by urgent cough, abundant purulent expectoration, and constantly increasing dyspnœa; but the patient was up, and frequently rode out. The emaciation became very marked, and the strength gradually failed, until she was hardly able to walk up one flight of stairs.

She was seen for the last time on November 14, 1878, when she spoke of taking cold with every change of the weather. The last attack had been, as before, ushered in by a chill, and there had been considerable fever. Cough very troublesome. Expectoration abundant and purulent. Pulse 132. The right side of the chest was tender on percussion. Resonance good everywhere. Abundant subcrepitant râles in the lower half of both lungs, posteriorly and laterally.

Though very weak, she rode ten miles soon after this last visit, but was unable to go up-stairs without help, and died of exhaustion, with but little warning, in the latter part of December, 1878.

If we now review the whole case, we have, first, an attack of acute inflammation, with marked signs of some thoracic affection. The earliest and most persistent signs indicated the smaller bronchi as their seat. To these were soon added the evidences of consolidation. The rapidity of development was such as might be seen in a case of croupous pneumonia, and the single mass of rusty expectoration favored this interpretation; but the subcrepitant râles, which were the first to appear, were such as often precede the consolidation of catarrhal pneumonia, and it was feared that this was present until the decline and disappearance of the signs of consolidation showed a more acute process. But the original subcrepitant râles persisted, and, in consequence of this, it was always suspected that a new consolidation of the pulmonary tissue would eventually follow, and particularly as the constitutional disturbance was not as great as in ordinary cases of frank pneumonia. Then came long periods when nothing was known of the condition of the lung, though the persistent cough and expectoration indicated a continuation of the catarrhal process at least, and when the occasional opportunities for examination occurred such a condition was found. But it was not known whether these physical signs were the result of fresh disease, or the persistence and aggravation of the old. The results warrant us in believing the latter. The rational signs were those of catarrhal pneumonia, though there was less fever than is common in severe cases of the kind. The fact that the anticipated consolidation did not occur makes this a very exceptional case, for such a persistence of subcrepitant râles without some farther change is the last thing to be expected. Notwithstanding the rarity of such cases, the evidence seemed sufficient to justify the diagnosis of chronic bronchitis, and probably dilatation of the bronchi.

The autopsy was necessarily hurried and partial, the thoracic organs alone being examined. Emaciation extreme. The lungs were free. The bronchi contained a large amount of purulent mucus, and were uniformly, but not excessively, dilated. The mucous membrane was of a deep red color, and appeared thicker than normal. The intervening pulmonary tissue appeared healthy to the naked eye. Heart normal.

CASE II. *Dilatation of the Bronchi of the Right Lung, with increased Density of the Pulmonary Tissue.* — The patient was an Irishman, with an excellent family history. Twenty-two years before he applied for advice (December 3, 1878), he was kicked down-stairs, and struck upon the right side of the chest, breaking, as was said, two ribs. This injury was followed by a severe illness, first called lung fever, and afterwards consumption, in which there was severe cough and general prostration. With this he lay in bed three years, and then got about very gradually, dyspnœa persisting to such an extent that he could not walk up-stairs after he was able to go down.

Two years after leaving his bed he was able to work, and led a very active life, though never free from cough and abundant expectoration, thin, stringy, and light colored when he felt well, but at other times yellowish white. Dyspnœa had also been a constant symptom, and had increased very much within the last three months. With these exceptions he felt perfectly well, and had driven a grocery wagon for fifteen years, until his feet began to swell, two weeks before he was seen. Never any pain. For three months he had had, on exertion, palpitation of the heart, first noticed after much anxiety and running about during the severe illness of his little boy. With this there was dizziness. Cough most troublesome in the morning and at night. Expectoration abundant and yellow. No blood Appetite very good, but the ingestion of food was followed by flatulence and palpitation, and late in the fall he could not take solid food or even milk without so much distress as to lead him to seek relief by vomiting. Bowels costive, regulated by a pill every night. No pain. No chills or fever. No night sweats, though he had such two years before. Had lost neither flesh nor strength. Pulse 108. Fingers and toes clubbed in a most striking manner. Lips and face cyanotic. Marked œdema of the feet and legs. Abdomen swollen. The heart was beating tumultuously to the right of the sternum, but no souffle could be heard. The right side of the chest looked smaller than the left, and was dull throughout on percussion. Over this whole region there were subcrepitant and coarse râles, with which were mingled some of a sibilant and sonorous character. On the left side the respiration was exaggerated, and at the base, posteriorly, were some subcrepitant râles. No increased resonance of voice.

Urine scanty, acid; urea slightly diminished; considerable albumen; a few hyaline and finely granular casts.

We had here the most conclusive evidence of thoracic trouble, of which the dyspnœa was the most prominent symptom at the time the patient was seen. The cough and expectoration during so long a period would certainly indicate some pulmonary disease which might be the cause of the dyspnœa. But if there had been catarrhal pneumonia sufficiently extensive to cause such difficulty of breathing, the general health must have suffered more. This point was strengthened by the appearance of the patient, whose face was cyanotic, when he called at my office and declared himself able to work if he could obtain relief from his dyspnœa. We had therefore to think of chronic bronchitis with emphysema, or perhaps a combination of these with cardiac disease. At the same time the very severe illness which formed the initial stage of the affection must have been something more than an ordinary bronchial attack; perhaps a pleurisy or pneumonia. But if either of these were the cause of his long subsequent illness, the lung must have undergone some singular change of structure to account for the symptoms. The difficulties of interpreting the rational signs were not diminished by an examination of the chest. The right side of the chest was contracted, and the sounds of the heart were most distinct to the right of the sternum. With such a conformation of the chest, we might reasonably suppose that the original disease had been followed by such a diminution of the size of the lung as to draw the heart to the right. The examination of the heart failed to show any valvular disease, so that if the cyanosis were connected with the heart itself, the displacement of the organ could alone explain it. But it was not improbable that the condition of the lung might be such as to oppose the escape of blood from the heart. The dullness on percussion was so marked as at once to exclude bronchitis or emphysema as the sole causes of cough, expectoration, and dyspnœa. The abundant moist râles, however, showed that the lung was beneath the ear, and these râles were of such a character that they might have been formed in small cavities or in the bronchi; but if these small cavities were the result of the destruction of the pulmonary tissue, as in catarrhal pneumonia, the constitutional effects must have been very different. We were justified, therefore, in believing that the fluid was in the bronchi themselves. The dullness, taken in connection with the contraction of the chest, suggested an old pleurisy. But if the suspicion that the air-passages were dilated was well founded, this dullness was well explained by the supposition of the existence of that dense condition of the lung found at times with dilated bronchi.

Bearing all these facts in mind, the patient was told that he was suffering from dilatation of the air-passages, and that the difficulty of breathing was probably owing to the obstruction to the flow of blood offered by the diseased lung. Although it was possible that there might be some renal disease, judging from the character of the urine, the abnormal features of the latter were explained sufficiently well by congestion.

After expressing an opinion about the case, it was ascertained that the patient had been for two years under the care of Dr. Doe, to whom I am indebted for some of the facts in the early history, and who also gave the following account of the condition two years ago: "He was suffering severely from dyspnœa and cough. The expectoration was profuse, and raised without difficulty. Marked venous congestion of the face. No pain. He attributed the attack to a cold contracted a few days before. On examination of the chest, loud, moist, bubbling râles were heard throughout the right lung; over the left front and back there were subcrepitant râles in abundance. When seen at his house, two days later, he was unable to leave his bed, where he remained in a sitting posture, owing to the excessive dyspnœa, relief being obtained for a short time only by vomiting. The expectoration continued profuse. Feet and legs œdematous. Urine normal. The râles throughout both chests were so abundant as to obscure the respiratory sound. Heart's action labored, but no disease of the valves was detected.

"Under the use of counter-irritants and emetics, he gradually recovered, and went to work in three weeks.

"After this he continued well, though the cough persisted until the exertion already mentioned, in August, 1878, when the palpitation began. The quantity of urine at this time was small, but its character was normal."

Very soon after visiting me he was confined to his bed by weakness, and was under the care of Dr. Doe, who found dullness over the whole right side of the chest, with the exception of a portion an inch and a half in diameter just outside of the left nipple, which was slightly tympanitic. The coarse râles persisted in the upper half of the right side, and in the left front were some of a subcrepitant character. The sounds of the heart were normal, but were heard most distinctly to the right of the sternum. The expectoration frequently amounted to two pints in twenty-four hours, and was of a creamy character. No improvement took place under treatment, and he died on Christmas Day.

Autopsy by Dr. Doe, forty-eight hours after death. The heart lay nearly in the median line; right auricle and ventricle much hypertrophied; left ventricle of the usual size; the orifice of the mitral valve admitted the tips of two fingers only, but the valve seemed pliant and apparently able to close. Both lungs were adherent to the walls of the chest, the right very firmly. Throughout the right lung the bronchi were very markedly dilated, especially in the upper two thirds, and were filled with a thick, cream-like secretion. Mucous membrane reddened and thickened. In the part corresponding to the tympanitic resonance the bronchus was so enlarged as to admit three fingers. There was slight dilatation of the bronchi of the left lung also. Many of the right bronchi showed the peculiar sickle-shaped folds so often seen in this form of disease. The intervening pulmonary tissue was more dense than usual. The stomach and kidneys appeared healthy. The liver was large and dark colored, as from congestion. The microscopic examination of the dense pulmonary tissue by Dr. E. G. Cutler showed a great increase of the connective tissue. This density of the lung was sufficient to cause obstruction of the circulation, but the narrowing of the mitral valve probably increased the difficulty.

Though described under the head of dilated bronchi, as this lesion was common to both of the cases, we do not overlook the fact that the dilatation was a consequence rather than a cause, and are therefore prepared, on comparing the symptoms, for a most striking contrast. In the first, the rational signs were those of catarrhal pneumonia; in the second those of emphysema or cardiac disease were quite as prominent. In the first, the physical signs were those of bronchitis; in the second, of catarrhal pneumonia.

They both, however, illustrate a law which should never be forgotten: *Symptoms, as such, rarely indicate special diseases, only certain morbid conditions common to many diseases; and that it is the correct appreciation of the combination of these symptoms, their proportions, and their relations to each other which is essential for diagnosis.*

Fibroid Tumor. — DR. J. H. WARREN exhibited the specimen, and made the following remarks: I wish to show you this specimen, which I removed on Wednesday last, February 19th. The patient, who was an American lady, and mother of four children, first noticed a slight tuberosity above the surrounding surface the first of last August. Some two weeks previous to my operating she called the attention of her physician to it, who thought it best to have it removed at once, owing to the rapid growth. Dr. Pitman, the attending physician, thinks that it had grown fully half an inch since he examined it, two weeks before. It developed from the anterior lip of the os uteri, and would seem to be a fibroid tumor. It is exhibited to show the rapid growth of such tumors. It was removed with the écraseur, and actual cautery was applied to control the hæmorrhage.

Lymphangitis. — Dr. Stevens made some remarks on a small sore which he had on one of his fingers, the cause of which he could not account for, and which was followed by a lymphangitis of the arm up to the shoulder.

Pneumonia with Erysipelas. — Dr. H. I. Bowditch spoke of a case of pneumonia which had been followed by erysipelas of the face, and death.

ELLIS'S DEMONSTRATIONS OF ANATOMY.[1]

This work occupies rather an intermediate position between what is called a "dissector" and a text-book of anatomy, though it is more closely related to the former. There is a good deal to praise in the clearness and arrangement of the work, but nothing sufficiently distinctive to call for much notice. The book is essentially English in method, which makes it appear old-fashioned to any one familiar with the current anatomical literature of the Continent. The convolutions of the brain are treated of in detail. The author follows Turner's nomenclature. It is to be regretted that one of the many systems in use cannot be agreed on. The tabular views of the distribution of the arteries and nerves of the various parts are very useful. It is a pity that the author felt called upon to touch histological points, for they have really no place in a work of this kind, and what little we find here does not add to the value of the book.

T. D.

HEARING AND HOW TO KEEP IT.[2]

A thoroughly good book, in plain, concise language, full of sound common sense and useful warnings, it is admirably adapted to diffusing a more popular knowledge of the ear, its functions and diseases, than is now generally met with. It is divided into three parts: Anatomy and Physiology; Chief Diseases and Injuries of the Ear, and the Avoidance of their Improper Treatment; General Hygiene of the Ear. What not to do in the different diseases constitutes a prominent and most useful feature of the book.

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[1] *Demonstrations of Anatomy: Being a Guide to the Knowledge of the Human Body by Dissection.* By George Vener Ellis. From the eighth and revised English edition. Philadelphia: Henry C. Lea. 1879.

[2] *Hearing and How to Keep It.* By Charles H. Bennett, M. D. American Health Primers. Philadelphia: Lindsay and Blakiston. 1879. 12mo. Pp. 150.

LUNACY REFORM.

We have until recently credited our lunacy reformers with as much honesty of purpose as could be expected where feelings of personal resentment at supposed unjust confinement have entered so largely into the movement. The ingenious misrepresentations of the half-insane have always been the basis, in part, of the ill-grounded assumptions of abuses in our asylums. But as long as their evidence could be offset by that of a different character, and the whole subjected to impartial consideration, no great harm could result from a healthy, legitimate public discussion of the matter. In spite of the meeting held in this city last winter, some good legislation was effected. There was indicated, however, a party spirit, and a striving for personal and political ends, in certain quarters, which cannot be too strongly condemned. The half-insane and inflammatory element was worked up and stimulated quite unnecessarily. Spite and prejudice against asylums and their superintendents had full sway, and got themselves into legislation in the provision that no physician connected with any hospital for the treatment of the insane shall certify in any case of insanity. But it was to an extraordinary exhibition of this spirit, and the practices to which it leads, in New York that we intended to call attention at present.

A report of the committee on public health to the New York legislature has recently been made on a petition alleging abuses in the state asylums. It was the duty of the committee to inquire whether warrantable grounds existed for ordering a detailed examination, for which purpose the superintendents of asylums, the commissioners of lunacy, and the signers of the petition were summoned. We give the following abstract from the report in the *Albany Argus:* —

" More than half the petitioners repudiate their signatures altogether. Not a baker's dozen put in an appearance. Of those who did put in appearance, not one knew anything, or pretended to know anything, of his personal knowledge. None of the complainants have ever been in all of the state asylums under their present management. Most of them had never been in any of them at any time. The principal complainant, William A. Hammond, of New York, had been in two of the asylums at intervals of eight and thirteen years; in the others never. The statements made by some of the apparent petitioners who repudiate their signatures are startling. President Barnard and Professor Draper, of New York, declare that they never signed their names, and that they were put on by fraud. Many physicians and clergymen say they were induced to sign some other petition, and that the paper on which they signed has been piratically pasted to the petition under consideration, — a petition which they never saw.

A very large mercantile firm makes a surprising statement to this effect: they recognize their signatures and that of twenty-one of their employees on a paper pasted on to the petition. They also state that that paper, containing those signatures, was a part of a testimonial of good character, which the firm and their employees had given to a departing associate. The paper with the signatures had been cut off from that testimonial and tacked on to the antiasylum petition. There are other piracies quite as flagrant as these exhibited by the report of the committee. The disclosures by the other persons repudiating their signatures are as peculiar as those already recited. Several clergymen pitifully declare that they signed the petition on the representation of others. As the petition charges gross offenses and incapacity against several gentlemen long and honorably in the service of the State, the alacrity of the clergymen to vilify public servants on ‘the representation of others’ is a commentary that needs no remark on such occupants of a sacred office. Other signers declare their signatures were asked for local improvements, and have been carried without their knowledge to the pending petition.”

“Every one of the complaining witnesses is a self-proclaimed know-nothing on the facts of the state asylums. They swear, however, at great length to theories of treatment, and with great personal antipathy to certain superintendents of asylums. In support of their charges they bring nothing. They name no witnesses. They make no allusions to where evidence can be had. They merely antagonize one mode of treatment against another, and declare that the men who are superintendents are not entitled to the reputation which they enjoy.”

The committee naturally declare the petition to be unsupported by a scintilla of evidence ; “ they declare the action and evidence of the few who come to the front to be an outrage on the honor of a decent and respected profession.” The committee of which Senator Goodwin is chairman appear to have taken great pains in the preparation of the report. Little comment upon it is needed. The care of the insane is a question upon which too much care and thought cannot be expended, but when the spirit of reform degenerates into persecution, and calls to its aid fraudulent devices to further its ends, it is time for the medical press to enter an earnest protest against such methods of dealing with so serious a subject.

FREE QUININE.

One of the last acts on the last days of the extra session of Congress was the passage of what is known as the McKenzie quinine bill, which in effect exempts the importation of salts of quinine and sulphate of quinine from customs duties, and the friends of the bill are to be congratulated upon the energy with which it was carried through both houses. Much of this result is due, as stated by Senator Beck, in the United States senate, to the article by J. S. Moore, in the New York *Evening Express*, June 7, 1879, from its influence upon a house committee. This article made the statement that while quinine is charged with a duty of twenty per cent. the bark is free of duty ; that the government, in 1878, got a revenue of exactly $10,171.60 from foreign quinine ; and that the importation of the bark amounted, in 1878, to $1,279,946, free of duty, no less than $600,000 being paid as extra tax to quinine manufacturers.

This extra session has definitely settled a struggle of twelve years’ duration in removing this tax, and, as Senator Davis, of Illinois, stated, if this Congress does nothing else than repeal the duty on quinine, it will not have been in vain that it was called together. The revenue of 1878, although amounting to only $10,171.60, was in excess of the regular income, as the yellow fever epidemic made a largely increased demand over the amount manufactured in this country.

On the other hand, there is yet more to be done, as was shown by Senator Morrill, who opposed the bill, and by the recent action of Messrs. Powers and Weightman, and Rosengarten and Sons, who, it is said, will not manufacture any more quinine, being unable to compete with the foreign market, with the duty on East India cinchona bark at ten per cent., and the tax of $1.70 per gallon on alcohol. The effect of such action on the price of quinine remains yet to be seen. Mr. Morrill predicts that in two years, or perhaps one year from now, the price of quinine will be higher than it has been before, and asks for the removal of tax upon the material, which will allow of increased competition in the manufacture. He showed the superiority of the bark from the Dutch and English colonies in the East Indies to that from South America, and called attention to the fact that while there was no duty upon the latter, the former, being shipped from Amsterdam and London, pays a duty of ten per cent. The English, moreover, allow their manufacturers to use alcohol without the payment of duties thereon. It would be interesting to learn how much of the crude material which has been so suddenly rendered unavailable is at present on hand in this country, as statistics show that about five million pounds of the bark are brought to us annually.

It would be well for us to look carefully at both sides of the question, and in case of necessity to demand further legislation, not for any repeal of the great advantage which we have apparently gained, but to give our own manufacturers the opportunity of full and free competition.

MEDICAL NOTES.

— There has been an unusually warm contest for the place left vacant in the section of hygiene and legal medicine in the Paris Medical School by the death of Professor Tardieu. M. Proust was elected to the chair.

— Professor Neubauer, one of the authors of the well-known work on urinary analysis, died June 2d at Wiesbaden.

— From English journals we learn that the rapidly developing trade for the importation of fresh meat from America is not without objectionable features. During the first week of June not less than fifty-one tons of this meat were condemned as unfit for human food. The condition of the meat was principally due to some failure in the freezing apparatus on the steamers.

— A committee has been formed in Florence for the purpose of establishing a hospital for the sick of all nations and all religions. — A remarkable improvement in the health of Professor Skoda is reported by the Vienna journals. — Professor Klebs has been appointed dean of the faculty of medicine in the University of Prague.

— At a recent meeting of the Odontological Society of Great Britain, Mr. Hepburn read a paper on the Effect of Smoking upon the Teeth. He considers the direct action of nicotine decidedly beneficial to the teeth. The alkalinity of the smoke must necessarily neutralize any acid secretion which may be present in the mouth, and the antiseptic property of the nicotine tends to arrest putrefactive changes in carious cavities. The dark deposit on the teeth of some habitual smokers he believes is largely composed of the carbon with which the tobacco smoke is impregnated. This deposit takes place precisely in those localities in which caries is apt to arise. The stain will penetrate through the minutest cracks unless careful attention be given to cleanliness. He likewise had been struck by the painless necrosis of carious teeth in smokers. This he accounts for by the narcotizing influence of nicotine. The experience of other speakers corroborated Hepburn's views. One, however, thought the frequent changes of temperature probably injurious by their tendency to crack the enamel. Another gentleman thought that smoking to the extent of affecting digestion caused recession of the gums, and otherwise injured the nutrition of the teeth.

— In the London *Lancet* we find these pertinent remarks on books in hospitals: We quite agree that a great boon will be conferred on the sick poor in hospitals if these institutions can be supplied with books, especially illustrated and entertaining volumes, which may help to divert the slowly convalescent and those suffering from injuries and diseases which incapacitate the body without impairing the power of thought from their pains and grievances. At the same time, we cannot but perceive that caution will be necessary. A *circulating* library would be in great peril of becoming a vehicle for the dissemination of disease. Especially dangerous would it be to allow books and papers which have been lying on the bed of a patient recovering from fever, erysipelas, or any one of a score of common maladies, to be used by a patient perhaps convalescent from some delicate operation, with an easily infected wound. It would be even incurring a great risk to allow children to play with picture-books which had been handled by patients suffering from scarlet fever, measles, whooping-cough, and the like. In short, the idea of a *circulating* library for the sick is misconceived. Far better would it be to provide the hospitals with a liberal supply of loosely-stitched sheets, which might be readily procured from the damaged stock of the great publishing houses, so that after these aids to recovery had served their immediate purpose they might be destroyed. We venture to hope philanthropy may take this line of enterprise, and not one calculated to constitute a new agency for the spread of disease.

NEW YORK.

— Dr. Nagle, deputy registrar of vital statistics, is about to publish his report for the year 1878, and the following information is derived from it: —

The number of births, as shown by the certificates of physicians, was 25,759, a considerable increase as compared with the number reported during the year preceding, and representing an annual birth-rate of 23.74 per 1000, the population of the city being estimated at 1,083,371. While the number of births reported, however, was 25,759, the number of deaths reported was 27,008, which apparently indicates a loss of population during the year. But the statistics of births always fall short of the truth, and it is estimated that the number which actually took place was about 38,000. The estimate as to the real number of births is made in the following manner: The records of mortality from December 31, 1870, to December 31, 1875, showed a yearly average of 8654 deaths of children under one year old, and the New York state census of 1875 showed that 27,261 native white children and 315 colored children of that age were alive in this city in that year. Assuming that all the colored children were born in the city, the number of children of that age who were alive in that year would be 27,576, and if to that number is added the average number of children who die at that age in a year, as obtained from the records of the five preceding years, the number of children born in this city in 1875 would be 36,230. This would give a rate of 34 79 births to every 1000 inhabitants of the estimated population. The state census of 1875 showed a native population of 581,374, foreign 445,258, and colored 15,254. This would give a birth-rate of 14.45 per 1000 for the native white inhabitants, 39.66 per 1000 for the foreign white, and 22.81 per 1000 for the colored.

The number of deaths during the year, as mentioned above, was 27,008, showing a death-rate of 24.90 to every 1000 of the estimated population, and an average daily mortality of 73.97. The tenement houses furnished 14,354, or 53.15 per cent. of the total number of deaths. The deaths, as usual, were more numerous during the third quarter of the year, the number being 981 greater than during any other quarter. The month of July had the highest mean temperature, 77.84° F., and also the largest number of deaths, the daily average being 99.16. In August the mean daily temperature was 74.20° F., and the average daily mortality 79.20.

Of the suicides reported, 58 were among Germans, 31 by natives of the United States, 22 by the Irish, and eight by the English population. One hundred and six individuals died after surgical operations during the year, but the vast majority of these were performed in incurable cases, with the hope of prolonging life.

— Whenever the mercury reaches an unusually high point there is always a proportional increase in the death-rate of the city. Thus, on Wednesday, July 16th, the maximum temperature was 101° F., and between noon that day and noon the day following two hundred and forty-nine certificates of death were received at the office of the Bureau of Vital Statistics. This is the largest mortality in twenty-four hours that has been reported during the present year.

— A fatal case of yellow fever has occurred in Brooklyn. The patient came from Havana on the steamer City of Merida, which reached lower quarantine on the 13th of July, and was detained four days, as is the usual custom in the yellow fever months. When she arrived there was one case of the disease on board, a waiter, who was taken off and sent to the hospital on Swinburne Island, where he afterwards died. Dr. Vanderpoel found no other sickness on board, as the man who died in Brooklyn was not taken ill until after the ship had passed quarantine. His case was not reported to the authorities until immediately before his death. A case of yellow fever has also occurred in Hoboken. The man who had it recently came on from Memphis, but the disease did not develop itself till after his arrival in the vicinity of New York.

— The oldest child of Dr. Henry D. Noyes, professor of ophthalmology in Bellevue Hospital Medical College, nine years of age, was recently drowned in the Shrewsbury River, near Monmouth Beach. While out sailing he was struck in the head and knocked overboard by the boom when the boat was tacking.

— Dr. Lewis A. Sayre, president elect of the American Medical Association, accompanied by his son, Dr. C. H. H. Sayre, sailed on the Arizona on the 22d of July, to attend the meeting of the British Medical Association at Cork, in August.

MEDICAL AND SURGICAL NOTES; UNITED STATES NAVAL HOSPITAL, CHELSEA, MASS.

BY ARTHUR C. HEFFINGER, M. D.,

Passed Assistant Surgeon United States Navy.

Sporadic Cerebro-Spinal Meningitis. — J. S., seaman, native of Germany, age twenty-four. Was admitted to the hospital with what was supposed to be febris intermittens. Examination revealed great tenderness over sacrum and lumbar region, particularly when the lumbar spinous processes were pressed upon; slight headache and general lassitude. Antiperiodic treatment was ordered. The third day after admission he had severe basilar headache and much pain and soreness throughout the entire spinal column, which was greatly increased by the slightest movement of trunk; herpetic vesicles were found upon the lips, and constant nausea existed. Cerebro-spinal meningitis was diagnosticated, and treated in the usual manner. Opisthotonos came on the following day, and confirmed the diagnosis. The disease followed a typical course for six days, when a sudden remission occurred, which lasted a week, the patient being almost entirely free from pain. At the end of a week, however, all the symptoms reappeared, and continued five days, the opisthotonos being less severe than before. A complete intermission succeeded, and lasted ten days, when a third attack set in; there was no opisthotonos, however, and scarcely any herpes. Morphia was given at this time in small, frequently repeated doses, hypodermically, after Ziemssen, with marked benefit; the patient became much better on the third day, the fever disappeared, and in a short time he was going down to his meals. After this he had repeated paroxysms of hemicrania and sciatica whenever the weather was damp and chilly; these paroxysms became less and less severe under potassium iodide and mercuric chloride. This case was chiefly interesting from its protracted periodicity. Hirsch claims to have met with many such, and it would seem to belong to his third class of the sporadic type.

Paralysis. — E. P., seaman, native of New Hampshire, age twenty-seven. Came into hospital with almost complete paraplegia, headache, dim vision, suffused eyes, retention of urine, and obstinate constipation. There was marked analgesia and some anæsthesia of the paralytic region. The attack was sudden, coming on in a few hours after the patient had been sleeping in a hammock with his back exposed to a draught. There was no evidence of syphilis. There was slight pain in lumbar region on bending the body, but no tenderness on pressure. Under tonics and the induced current, all the symptoms rapidly passed away except the vesical paresis. An electrode was introduced into the bladder, and the induced current passed till the bladder could be felt grasping the pole. Immediate improvement ensued, the patient being able to pass his urine, though slowly, without a catheter. The current was passed in a similar manner on the two following days, when perfect control of the bladder was obtained.

Eczema. — W. W., marine, native of New Jersey, age forty-five. Entered the hospital with a large eczematous patch, of six years' duration, on the anterior aspect of the right leg and ankle. He had repeatedly undergone the routine constitutional and local treatment without material benefit. The foot was elevated, quiet maintained, and the parts kept in an atmosphere of carbolic acid by envelopment in lint saturated with a forty per cent. solution. After ten days of this treatment no vesicles were found, the surface looking quite smooth and pale. A fifteen per cent. carbolized ointment was then applied on lint, and continued six weeks, when the involved skin was nearly the color of the surrounding parts, and perfectly smooth. The itching, which was intolerable in the beginning, disappeared after the tenth day. If similar results from this treatment could be obtained in a number of cases, the question of the nature of eczema would again become conjectural.

Operation for Contracted Meatus following Phagedenic Chancroid of Penis. — F. R., seaman, native of Massachusetts, age twenty-nine. Was admitted to hospital with phagedenic chancroid of glans penis; there was phymosis, with great preputial œdema. His hospital ticket stated that phymosis and gangrene had existed two days prior to his transfer to hospital. The prepuce was split up, disclosing a completely gangrenous condition of the glans and five centimetres of the body of the penis. Carbolized dressings were applied, and, there being considerable fever and depression, milk-punch and quinine were given. The patient did well, the slough separating in ten days. Contraction of the meatus followed in a few weeks, of a sufficient degree to render urination difficult and very slow. A small triangular segment of tissue on the dorsum of penis, including all between the integument and mucous membrane of urethra, was removed, and the skin and mucous membrane were stitched together. A redundant prepuce, caused by the loss of tissue, was also removed at this time. The parts healed in a few days, and the patient was sent to duty. He returned to the hospital six weeks subsequently with pneumonia. I examined the meatus, and found that a No. 3 sound could scarcely be passed, micturition being more difficult than ever. He made a rapid convalescence from the pneumonia, and when well enough to take ether I followed the suggestion of Dr. Samuel Cabot, and, passing one blade of a pair of scissors into the urethra, split the penis open upon the dorsum for five centimetres; the skin and mucous membrane were sewed together, and the parts dressed with carbolic acid. The wound healed kindly, and in a few weeks the man went to duty. A No. 18 sound was passed with ease before he left. It is now six months since the operation, and no contraction has taken place.

Chronic Orchitis. — Four cases of chronic orchitis, with great enlargement, two being gonorrhœal and two traumatic, were treated after Dr. Fessenden Otis's method. The glands were first poulticed several days, inunctions of mercurial ointment being used every night. Adhesive strips, applied as tightly as possible, were then kept on for two or three days, when poulticing and inunction were again resumed. Almost immediate improvement followed in every case; great reduction took place in a week, and in three of the cases the glands were of normal size in six weeks; the fourth, which was of a year's duration prior to commencement of treatment, was cured in nine weeks. These results are certainly encouraging, and hospital surgeons should be gratified that such a large class of chronics can be so easily disposed of.

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REPORTED MORTALITY FOR THE WEEK ENDING JULY 19, 1879.

Cities.	Population estimated for July, 1879.	Reported Deaths in each.	Annual Death-Rate per 1000 during the Week.	Percentage of total Deaths from				
				The Principal "Zymotic" Diseases.	Diarrhœal Diseases.	Scarlet Fever.	Diphtheria and Croup.	Pneumonia.
New York	1,085,000	833	40.03	43.94	35.41	3.24	1.32	3.12
Philadelphia	—	—	—	—	—	—	—	—
Brooklyn	564,400	331	30.58	41.99	35.65	—	1.51	1.81
Chicago	—	274	—	40.51	31.39	1.82	2.92	1.09
St. Louis	—	182	—	36.26	29.12	.55	—	1.10
Baltimore	365,000	222	31.71	40.99	28.83	4.50	1.35	.90
Boston	360,000	144	20.85	32.64	22.22	1.39	5.56	2.08
Cincinnati	280,000	190	35.33	38.42	27.37	5.26	2.11	2.11
New Orleans	210,000	83	20.61	31.32	19.28	—	—	2.41
District of Columbia	160,000	109	35.52	33.03	27.52	—	.92	.92
Cleveland	—	96	—	40.63	31.25	3.13	1.04	—
Pittsburgh	—	—	—	—	—	—	—	—
Buffalo	—	—	—	—	—	—	—	—
Milwaukee	—	56	—	33.93	23.21	—	8.93	3.57
Providence	101,500	51	26.20	25.49	23.53	—	1.96	1.96
New Haven	60,000	30	26.07	40.00	33.33	—	3.33	3.33
Charleston	57,000	59	53.97	16.95	11.86	—	1.69	—
Nashville	27,000	19	36.69	21.05	15.79	—	—	—
Lowell	53,300	29	28.36	48.28	41.33	—	3.48	3.48
Worcester	52,500	19	18.87	26.32	15.79	10.53	—	10.53
Cambridge	51,400	17	17.24	47.06	23.53	5.88	17.65	—
Fall River	48,500	37	39.78	56.76	32.43	18.92	—	—
Lawrence	38,200	27	36.86	51.85	51.85	—	—	—
Lynn	34,000	11	16.87	27.27	—	—	9.09	—
Springfield	31,500	12	19.86	41.67	25.00	8.33	—	16.67
New Bedford	27,000	11	21.24	27.27	18.18	—	—	9.09
Salem	26,400	7	13.83	57.14	—	—	42.86	—
Somerville	23,350	10	22.33	20.00	20.00	—	—	—
Chelsea	20,800	7	17.55	28.57	—	—	14.29	—
Taunton	20,200	4	10.32	25.00	25.00	—	—	—
Holyoke	18,200	14	40.11	35.71	14.29	7.14	7.14	—
Gloucester	17,100	1	3.05	—	—	—	—	—
Newton	17,100	—	—	—	—	—	—	—
Haverhill	15,300	3	10.22	—	—	—	—	—
Newburyport	13,500	5	19.31	—	—	—	—	—
Fitchburg	12,500	2	8.34	—	—	—	—	—

Two thousand eight hundred and ninety-five deaths were reported against 2474 of the previous week: 1139 from the principal "zymotic" diseases, 876 from diarrhœal diseases, 265 from consumption, 70 from scarlet fever, 59 from diphtheria and croup, 59 from pneumonia, 40 from malarial fevers, 28 from bronchitis, 27 from typhoid fever, 21 from whooping-cough, 20 from direct solar heat, 19 from cerebro-spinal meningitis, 18 from measles, nine from erysipelas, five from trismus nascentium, two from pleurisy, none from small-pox. From *malarial fevers,* 12 deaths were reported in New York, nine in New Orleans, six in

Brooklyn, five in St. Louis, three in Baltimore, two in District of Columbia, one in Chicago, New Haven, and Nashville. From *bronchitis*, 16 in New York, four in Brooklyn, two in St. Louis and Boston, one in Chicago, Baltimore, Cincinnati, and District of Columbia. From *typhoid fever*, four in New York and St. Louis, three in Cincinnati, two in Baltimore, Boston, Charleston, and Fall River, one in Chicago, New Orleans, District of Columbia, Cleveland, Lowell, New Bedford, Salem, and Holyoke. From *whooping-cough*, five in Brooklyn, four in New York and Baltimore, three in Boston, one in Chicago, St. Louis, and District of Columbia. From *direct solar heat*, 10 in New York, six in Charleston, two in St. Louis, one in District of Columbia and Baltimore. From *cerebro spinal meningitis*, seven in Chicago, three in New York, two in Baltimore and Cleveland, one in Cincinnati, Milwaukee, Lynn, Springfield, and Chelsea. From *measles*, seven in New York, five in Brooklyn, two in Cleveland, one in Chicago, St. Louis, Baltimore, and Cincinnati. From *erysipelas*, three in New York, two in Baltimore, one in Chicago, St. Louis, and District of Columbia. From *trismus nascentium*, three in Baltimore, two in Charleston. From *pleurisy*, one in Brooklyn and New Haven.

The noteworthy changes for the week are a very great increase in the mortality from all causes, from malarial fevers, typhoid fever, cerebro-spinal meningitis, and diarrhœa; a considerable increase from consumption; the disappearance of small-pox; and the occurrence of three deaths (the same as in the previous week) from yellow fever in Memphis. About two thirds the previous number of deaths per week are reported in New Orleans. In eighteen of the nineteen cities of Massachusetts, with an estimated population of 863,750, the only noteworthy change is an increase in diarrhœal diseases.

The heat was excessive in some places, with sudden changes. The meteorological record for the week in Boston was as follows: —

Date	Barometer.	Thermometer.			Relative Humidity.				Direction of Wind.			Velocity of Wind.			State of Weather.[1]			Rainfall.	
	Mean.	Mean.	Maximum	Minimum.	7 A. M.	2 P. M.	9 P. M.	Mean.	7 A. M.	2 P. M.	9 P. M.	7 A. M.	2 P. M.	9 P. M.	7 A. M.	2 P. M.	9 P. M.	Duration.	Amount in Inches.
July 13	29.935	71	83	60	64	45	62	57	0	E	SW	0	10	14	C	C	C	—	—
" 14	29.909	77	92	64	60	41	73	58	SW	SW	SW	10	10	9	F	C	C	—	—
" 15	29.862	78	90	69	72	69	60	67	W	SE	SW	6	9	9	C	F	O	—	—
" 16	29.727	78	93	66	66	43	80	63	W	W	SW	12	12	16	C	F	O	—	.64
" 17	29.722	71	80	66	61	37	56	51	W	NW	NW	18	19	10	C	F	C	—	—
" 18	30.009	60	67	58	77	67	88	77	NE	E	S	8	12	6	F	C	F	—	.05
" 19	30.175	60	66	55	88	75	94	86	N	E	SE	8	17	4	O	F	C	—	—
Week.	29.906	71	93	55				66		SW		1627 miles						1.75	.69

[1] O., cloudy; C., clear; F., fair; G., fog; H., hazy; S., smoky; R., rain; T., threatening.

During the week ending July 26th, 85 cases and 37 deaths (total deaths for the week 71) from yellow fever were reported in Memphis, showing a very high rate of mortality; four cases (refugees) and two deaths occurred in Louisville; three and one death (refugees) in New York; one death (refugee) at Shelbyville; a few cases and one death at Mississippi City; and one death (from Havana) in Brooklyn. As usual at this season of the year, a considerable number are detained at the quarantine stations. Illinois, Kentucky, Tennessee, Mississippi, and Louisiana have adopted the regulations of the National Board of Health.

For the week ending June 28th, in 149 German cities and towns, with an estimated population of 7,557,941, the death-rate was 28.2, an increase of 0.7 over the previous week. Consumption and diarrhœal diseases still increasing. Four thousand one hundred and two deaths were reported: 800 from diarrhœal diseases, 532 from consumption, 287 from acute diseases of the respiratory organs, 89 from diphtheria and croup, 54 from scarlet fever, 52 from whooping-cough, 46 from measles, 42 from typhoid fever, 23 from puerperal fever, four from typhus fever, three from small-pox, one from simple cholera. The death-rates ranged from 14.8 in Potsdam to 46.4 in Berlin; Königsberg 37.0; Dantzic 30.6; Breslau 33.1; Munich 35.7; Stuttgart 21.2; Dresden 26.1; Nuremberg 22.6; Leipsic 16.8; Hamburg 21.7; Hanover 18.0; Bremen 20.6; Cologne 22.6; Frankfort-on-the-Main 19.7; Strassburg 32.9; Darmstadt 23.0. Also for the same week, Vienna 26.7; Paris 24.0; Prague 39.8.

For the week ending July 5th, in the 20 English cities having an estimated population of 7,383,999, the death-rate was 17.9, a decrease of 0.4 from the previous week, with a considerable increase in small-pox (London) and respiratory diseases; measles and scarlet fever were much less fatal. Two thousand five hundred and thirty-one deaths were reported: 197 from diseases of the respiratory organs, 104 from measles, 84 from scarlet fever, 69 from whooping-cough, 42 from diarrhœa, 30 from fever, 18 from diphtheria, eleven from small-pox (in London). The death-rates ranged from 9.5 in Portsmouth to 27 in Newcastle; London 17.4; Brighton 15.3; Bristol 16.9; Birmingham 17.8; Liverpool 21.2; Manchester 22.1; Leeds 17.2. For Edinburgh 18, Glasgow 19, Dublin 26 (six from small-pox). In the same week, Geneva 9.1; Zürich 19.0; Basle 11.4; Lucerne 16.2; Vevay 11.5; in the twenty prominent Swiss towns there is no "zymotic" disease very prevalent, diphtheria having caused only five deaths for the week. In Brussels the rate was 17.1; Antwerp 25.7; twenty-eight Belgian towns with a population over 10,000, 21.9; twenty-four smaller towns 22.5. Paris 23.4. Small-pox is quite prevalent in Paris, Marseilles, Rheims, Vienna, Budapesth, St. Petersburg, Calcutta, Bombay, and Madras; less so in Lisle, Breslau, Warsaw, Naples, Milan, Boulogne, Lisbon.

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Transactions of the South Carolina Medical Association. Charleston. 1879.

Laryngeal Tumors and Tuberculous Laryngitis. By E. Fletcher Ingals, A. M., M. D. Reprint from Chicago Journal and Examiner. 1879.

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Wood's Library of Standard Medical Authors. A Clinical Treatise on the Diseases of the Nervous System. By Prof. M. Rosenthal. With preface by Professor Charcot. Translated from the author's revised and enlarged edition. New York: Wm. Wood & Co. 1879.

Lessons in Gynecology. By William Goodell, A. M., M. D. With eighty illustrations. Philadelphia. D. G. Brinton. 1879.

Some Practical Facts in Fractures of the Thigh. By Norman L. Snow, A. M., M. D. New York: D. Appleton & Co.

Transactions of the State Medical Society of Arkansas. 1879.

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LECTURES.

CLINICAL LECTURE: CARDIAC HYPERTROPHY AND DILATATION, WITH PROBABLE ANEURISM OF THE THORACIC AORTA.

DELIVERED AT THE MEDICAL DEPARTMENT OF THE UNIVERSITY OF THE CITY OF NEW YORK.

BY PROFESSOR ALFRED L. LOOMIS.

GENTLEMEN, — This patient, who is about fifty years old, says that he has not been well for twelve months. The first thing that he noticed was a severe pain in the breast, which was not constant, but was considerably increased by exercise when present. He does not know whether he would have been entirely free from it if he had remained perfectly quiet, as he has been obliged all the time to attend to his regular occupation, which is that of a carpenter. At first there were more or less extended intervals between the paroxysms of pain, but these intervals gradually became shorter, until more recently he has had at least one attack every day. Of late, he feels the pain not only in the breast, but in the stomach and abdomen also. When I ask him if there is any posture which gives him relief, he says that when he lies upon the chest, causing considerable pressure to be made, he gets the most ease. At night he is not able to lie flat down in bed, but always sleeps in a semi-recumbent position. On inquiry I find that he has had three attacks of general acute articular rheumatism. The first occurred when he was fourteen or fifteen years of age, and confined him to bed for about six weeks.

He once had a sore upon the foreskin of the penis, and this was followed by an enlargement of the glands of the groin, which did not suppurate. There was no eruption, though he says he had sore throat for a short time, and also very slight pain and tenderness along the shins. He never had any inflammatory affection of the eyes. He is a married man, and has healthy children, while his wife has had but one miscarriage. He thinks he has had intermittent fever, and says that he had what he calls "dumb chills" (manifesting themselves in creeping sensations and pains in the limbs) for seven or eight years. He has had a slight cough for a considerable time, and the expectoration in connection with it is usually white. Two or three weeks ago, however, it was discolored with blood, which was not mixed generally through it, but occurred in streaks. Once, for a short time, it seems that he had a general swelling of the body, which was by far the most marked in the feet, and which subsided during the night. He never noticed anything peculiar about his urine. He has no difficulty in swallowing.

What he comes here for, he says, is to seek relief for shortness of breath, and the pain in his chest, stomach, and abdomen.

Let us now see what light a physical examination will throw on the history which you have just heard. On inspection and palpation of the thorax, we find that the upper part of the chest just to the right of the sternum is a little more prominent than it is on the opposite side. Respiration is somewhat labored, and while the impulse of the heart is further to the left than it should naturally be, there is also a very marked epigastric impulse. In addition, we find a pulsation in the upper portion of the chest to the right of the sternum, as well as in the neck (in the subclavians). Where the pulsation to the right of the sternum is seen, a distinct purring thrill can also be felt upon palpation. Does a purring thrill in this position indicate aneurism? Possibly it may, but the probability is that it does not. Purring here is ordinarily evidence of a simple dilatation of the arteries, rather than of an aneurism. The only point that we can determine without much question from inspection and palpation in this case is that there is hypertrophy of the heart with dilatation present.

Passing to the other physical signs presented here, we find that vocal fremitus is considerably greater on the right side than the left, and percussion shows slight dullness on the left side behind. When we listen to the chest, we get pure vesicular respiration on the right side, while on the left this is somewhat diminished. The breathing has no tubular character, however. Over the upper part of the left lung behind there is bronchial fremitus, with pretty loud sonorous râles, while towards the lower part distinct friction sounds can be heard.

When the patient lies down, it is seen that the epigastric impulse disappears to a great extent; and the same is true of the impulse of the heart over an increased area, as well as the pulsations in the upper part of the chest and the neck. The purring thrill which has been mentioned also becomes very slight. By the act of lying down coughing is excited, and you will notice how red his face is made thereby. On making percussion over the infra-clavicular spaces, we find that, extending on both sides of the sternum to a considerable distance, there is very marked dullness. If vertical lines were drawn from the two nipples upwards towards the clavicles, the space between them would almost correspond with the upper portion of the area of dullness. This whole area is somewhat the shape of a parallelogram, and is found to slant obliquely to the left as we percuss downwards, involving the left nipple, and extending considerably beyond it below, but passing somewhat to the left of the right nipple. Beyond the line of dullness on either side (that is, towards the outer end of the clavicle), the percussion note is almost tympanitic. All the lower portion of this large area of dullness can be satisfactorily accounted for on the supposition that there is hypertrophy of the heart, with dilatation. We find, indeed, that inferiorly the cardiac dullness does not reach much further than it should in health ; but otherwise it is very abnormal in extent. The dullness in the upper part of the chest corresponds in general with the portion of the aorta, involving the mediastinum, and extending somewhat further to the right than to the left.

The pulse is not very full, and is not at all jerking in character. On applying the stethoscope at various points over the above area of dullness, we find that there are two murmurs, corresponding in general with the first and second sounds of the heart, and heard with the greatest intensity at the base. One of them, at least, seems to be conveyed upward into the carotid arteries. The question is now, Have we an aneurism here? But suppose that there was an aneurism; would we be likely to have a double murmur of this kind with it? Undoubtedly it might occur; but where this is the case, it is an exception to the general rule. Some, indeed, deny that we ever have two murmurs with an aneurism ; but I have heard them too often myself to accept such an opinion as that. In exceptional cases, then, where the sac is large, and there is a good deal of fibrinous deposit, there is a murmur (corresponding with the first sound of the heart), caused by the blood rushing into the sac, and a second one (corresponding with the second sound) by the recoil of the blood. As the patient bends over forward, it is found that the murmur becomes louder and rougher; and when the hand is placed over the heart, a diffused and somewhat heaving impulse is felt, while the impulse to the right of the sternum is increased.

As to the condition of the lungs, there must be either some obstruction within the large bronchial tubes or else external pressure upon them. On the right side particularly there is evidently obstruction of entrance of air into the lung. The cough that he has, however, is not of a character which would indicate compression of either the recurrent laryngeal nerve or the trachea. There is found to be some tenderness in the epigastrium, the liver is normal in size, and the spleen seems to be slightly enlarged. The pulse is not very full, but it is not at all jerking in character. It is not accelerated, and there is no difference in it at the two radial arteries.

Still the question comes up, Have we an aneurism here? Many observers would decide from the evidence which is now before you that there was undoubtedly an aneurism of the transverse arch of the aorta, and they would certainly have a fair show of reason for such an opinion. Personally, however, I should hesitate to make the diagnosis of aneurism in this case until I had kept it under observation for a considerable time. By experience I have learned to be conservative in these matters, and I am positive that I have sometimes met with all the physical signs which are present here when there was no aneurism at all, but only a simple dilatation of the aorta, with thickening of the tissues about that dilatation. Still, the long-continued, deep-seated pain which this patient has complained of (and which is relieved by the pressure caused by lying upon the chest), and the fact that it is increased after exercise, point towards the diagnosis of aneurism. While, then, it is perhaps probable that there is a thoracic aneurism here, we must not forget that we may have only hypertrophy and dilatation of the heart, with considerable mediastinal thickening. It is a curious fact that this condition of the heart, which is undoubtedly present here, is seldom met with in connection with aneurism, and I have often wondered why the heart is not more affected in this disease. With the most enormous aneurisms I have again and again found the heart perfectly normal, and performing its work in the most efficient manner.

Before dismissing the case, I would call your attention to one other point, and that is the possibility of there being disease of the kidney here. If this were found to be the case, it would help us to account for certain of the symptoms present, which now seem to be due entirely to pressure. In any event, however, the prognosis is not a very favorable one in this patient.

THE MALARIAL CACHEXIA.[1]

BY J. O. WEBSTER, M. D., AUGUSTA, MAINE.

ALL physicians who have much professional intercourse with the soldiers of our late war soon learn to recognize a peculiar state of the constitution, not well explained in books, but very characteristic, which is commonly ascribed to malarial poisoning. The name of "chronic malarial poisoning," or "toxæmia," is quite generally given to this condition. But to this term there is the objection that it is the appropriate designation of a form of disease caused by long-continued or chronic exposure to the influence of malaria, which was very common in our army, and is abundantly described in medical literature; while in the condition with which we have to do at present, the remote sequence of that disease now observed, there is probably not a saturation of the system with the malarial poison, but there is a permanent modification of the constitution, caused originally by the action of that poison. This state of the constitution is analogous to the diatheses, differing, however, in that it is acquired instead of congenital, hence more properly called a cachexia,[1] and the term "malarial cachexia" is adopted for use in this paper.

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[1] Read before the Kennebec County Medical Association, May 22, 1879.

This name has itself been rather loosely employed, being sometimes applied to the active stage of malarial toxæmia; but wherever used in this paper, *malarial cachexia* means *an acquired modification of the human constitution, the remote consequence of malarial poisoning.*

As a person may be the subject of two diatheses, which mutually modify each other, so the malarial cachexia may be more or less modified by the diathesis of the individual; and, on the other hand, the nervous and bilious diatheses are intensified by this cachexia, especially the latter; but, aside from such modifications, the condition of the subjects of the malarial cachexia is about as follows: —

The skin is sallow, and the body presents the appearance of anæmia and emaciation, the weight being less than that normal to the individual. The tongue is invariably coated, generally with a thick, yellow fur; sometimes it is dry and fissured. There is often complaint of dyspepsia; generally sluggishness of the bowels; in some cases occasional attacks of diarrhœa. The liver is frequently enlarged and tender, and the discharge of bile in the stools evidently scanty. There is a general sense of malaise, or a feeling of being constantly tired; breathlessness on exertion; ability to do but a fractional part of the manual labor formerly possible; and the fatigue after labor is profound, and slowly recovered from. Want of energy is very common, and there are often hypochondria and irritability; all these without any apparent organic disease. In many cases there are frequent attacks of sick headache, or migraine, evidently the result of this cachexia, as they occur in persons who were not naturally disposed to them. The not unusual cases in which there is actual organic disease of the liver, kidneys, etc., the result of malarial poisoning, are beyond our proposed limits.

The malarial cachexia seems to be permanent; indeed, instead of showing a tendency to fade away, it appears to become more deeply impressed upon the constitution with the lapse of time. The subjects of this cachexia have a diminished power of resisting diseases, especially those incident to climatic and meteorological changes. They are particularly subject to catarrhal inflammations, as bronchitis, and to ephemeral fevers. As diseases are modified by the diathesis of the individual patient, so this acquired diathesis modifies them. Acute diseases are more apt to be ushered in with a chill than in other patients. Fevers, essential or symptomatic, are apt to be more markedly intermittent than is usual, and to vary much in their course, so that it is sometimes difficult to make a diagnosis. Convalescence, after illness, injury, or surgical operation, is slow and unsatisfactory. The above description is written entirely from my own observation. I have been unable to find, in the medical literature to which I have had access, any good account of the condition under consideration, although it is spoken of in English works as a very common state in those who have formerly resided in India, and doubtless descriptions of it exist. "Chronic malarial toxæmia" is well described; but that term, as we have already seen, is applied to the more immediate results of exposure to the influence of the paludal poison, as it occurred, for example, in the Union army, where it was a very common condition. For its bearing upon the ætiology of the malarial cachexia, we quote the following excellent description of "chronic malarial toxæmia:" "The man is evidently out of health, and unfit for duty. He is said to be laboring under 'general debility.' There is a gradual loss of power, and fatigue comes on from slight exertion, with breathlessness and palpitation; the senses are dull and perverted; there are moroseness, despondency, and irritability; headache and neuralgic pains in the course of the fifth pair of nerves; lameness of the muscles of the back and legs is often complained of, after little exertion; occasionally there is more or less diminution of sensibility or motion of the lower extremities, which become enlarged, and the integument is shining, smooth, and pits upon pressure; the appetite is capricious and lessened, and there is constipation alternating with diarrhœa; the urine, at first copious, soon diminishes, with an increase of the urates and phosphates, and frequently of the oxalate of lime, and is loaded with epithelium; the bladder is irritable, with frequent micturition; the skin is harsh, dry, of a greenish-yellow hue, and bronzed in portions, and the hair has a dead look and feel. Persons in this condition are very liable to acute disorders, particularly pneumonia, which are constantly fatal."[1]

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[1] A cachexia is an acquired modification, as compared with a diathesis, which is inherited or congenital. Fothergill, American edition, page 278.

In those who died at this stage, it was observed that the poison had manifested itself by anatomical changes in the liver, kidneys, spleen, stomach, intestines, and mesentery; and in the viscera drained by the portal circulation are always found the pathological sequences of the malarial poison. In the opinion of Lussana the poison of malarial fever is confined to the portal circulation. In those who did not die, it is a necessary conclusion that the same anatomical changes had taken place, only less in degree. After returning to non-malarial regions they recovered more or less imperfectly from the disease, but were left with some modification of the constitution, perhaps with some structural change in the organs affected, and will remain, for the rest of their lives, subjects of the malarial cachexia. This is not a rare condition. In this little city [Augusta] the subjects of the malarial cachexia may be counted by the score, and all through the North many thousands must be thus affected.

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[1] Clymer, in Aitken's Practice, American edition, vol. i., page 461.

Writers upon "chronic malarial poisoning" appear to take for granted, indeed most of them assert positively, that its subjects, if removed to non-malarial regions and treated with quinine and its *succedanea*, will perfectly recover. How far that is from the fact is shown by the experience of our Northern soldiers. In cases where the exposure to the paludal poison had been brief, and had eventuated in a regular attack of chills and fever, with speedy removal from the sources of the poison, a return to health took place; but in those chronically exposed to the poison, in whom, with or without intermittent fever paroxysms, the condition of "chronic malarial toxæmia" was set up, it would be safe to assert that a very minute percentage ever regained their former state of health. The future prospects of sufferers from the malarial cachexia are not encouraging. The condition shows no natural tendency to disappear but rather to become more intense, and medical treatment is at best only palliative. Their physical debility cripples their energies, and sadly interferes with their success in life; their diminished power of resisting disease makes them liable to fall an easy prey to various acute affections; their lowered vitality makes it improbable that they will attain respectable longevity.

The general principles of treatment of persons laboring under the malarial cachexia may be derived from the description of their symptoms already given. There is nothing specific in the treatment, but the end in view must be the promotion of general nutrition and the palliation of morbid symptoms, so far as practicable. Perhaps the most important symptom that presents itself to our attention is the sluggishness of the abdominal viscera. Until that is relieved, it is useless to direct treatment to other conditions. And there are but two measures that seem effectual for the relief of this symptom, the use of mercurial cathartics and the employment of emetics. Whether mercury is a hepatic stimulant or not, it at least removes a large amount of bile from the intestines, and prevents its reabsorption. A blue pill and seidlitz powder, in these cases, is an excellent beginning of a course of treatment. Emetics are of perhaps even greater utility. For a knowledge of their value in this condition, I am indebted to a prominent physician of the South.[1] An emetic is well known to be a powerful stimulant of the portal circulation and of the viscera drained by it. Either of these measures will need to be occasionally repeated, and meanwhile the bowels must be kept free by proper diet or other means, among the best of which are podophyllin, in small doses, at night, saline and alkaline laxatives, as the Carlsbad salt, or the following nearly equivalent combination taken early in the morning: —

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[1] J. D. Mitchell, M. D., of Jacksonville, Fla.

		Gms.		
℞	Sodii sulphatis	1	25	(℈i.)
	Sodii bicarb.		60	(gr. x.)

To be taken in a cup of warm water.

Tonics are manifestly called for by the symptoms, and the most valuable are quinine and arsenic; not because they are so-called specifics for malaria, but because they are the best tonics to the digestive organs, as well as to the system generally. They may be given singly or combined, and in pill form it is well to put with them some capsicum, which is considered a hepatic stimulant. The following pill has proved valuable in my experience: —

		Gms.		
℞	Quiniæ sulphatis		12	(gr. ij.)
	Acidi arseniosi		002	(gr. $\frac{1}{30}$)
	Pulv. capsici		06	(gr. i.)
	Ext. taraxaci	q. s.		

To be taken before each meal.

The mineral acids, after eating, are of very great utility in these cases, — nitric, muriatic, or their combination, freely diluted.

The anæmia, which is a prominent symptom, would seem to call for iron, but it is not usually well borne, as is the case in other affections where the tongue is coated. Still, if the bowels are kept free, it will sometimes act well, and should be tried. Dialyzed iron is usually as well borne as any form; but sometimes the following combination will act better than any other: —

		Gms.		
℞	Ferri et potassii tart.		30	(gr. v.)
	Liquoris potassii arsenitis		12	(♏ ij.)
	Potassii bicarb.		60	(gr. x.)
	Tinct. nucis vomicæ		30	(♏ v.)
	Aquæ	ad 4		(ʒi.)

To be taken in a wineglassful of water, before eating.

Another valuable medicine, now recognized as a tonic, is corrosive sublimate, which may be given in doses of one to two milligrams (one sixtieth to one thirtieth grain), in a bitter tincture, and it may advantageously be alternated with the other tonics.

One peculiarity in the treatment of subjects of the malarial cachexia is that no form of medication appears to be beneficial for a long time, but frequent changes are necessary. Of course, many other measures will suggest themselves to the physician. Change of climate, a sea voyage, the hot springs, etc., are worthy of trial. Into the matter of general regimen it is not necessary to enter, although it is of prime importance, for it is governed by principles that are familiar. After all, our treatment will be, in one sense, a failure, for it seems probable that the condition of which we have treated is ineradicable. But, by the resources of our art, we can get its subjects into, and keep them in, a much better condition than they would be without treatment.

There remains one thing more that the physician can do for these persons. He can advise them that, as "they do not possess a normal amount of health and strength," they should not "aspire to the habits and practices of perfect health, or of a by-past time," but should "moderate their aspirations," and "limit their demands upon themselves to their capacities," and thus "much better health and even length of days would be practicable." [1]

In conclusion, I beg of you to judge of this paper as, what it pretends to be, not a dogmatic treatise upon the pathology or treatment of the malarial cachexia, but simply an attempt at a study of this condition from a clinical point of view, and a contribution from my own experience and observation.

A MEDICO-LEGAL CASE OF ABORTION, FOLLOWED BY CONVICTION OF THE ACCUSED ABORTIONIST.[1]

BY MEDICAL EXAMINER J. C. GLEASON, M. D., OF ROCKLAND.

In the afternoon of June 8, 1878, in response to a telegram from Dr. J. W. Spooner, I went to Hingham to view the body of Mrs. Rebecca H., a colored cook, living in the family of Mrs. B., in the west part of the town. I found the body of Mrs. H. in ordinary dress, lying upon a bed in an attic chamber, used as the sleeping apartment of the house servants.

I learned that, in apparently perfect health, the woman had gone up to this room at about eleven A. M. with a Dr. Gilson, of Boston, she carrying up with her a basin of warm water; that in twenty-five to thirty minutes he came hurriedly down-stairs for brandy; that servants procured it for him, and, accompanying him up-stairs, found Mrs. H. upon the floor dead. A tub containing a small quantity of bloody water was seen near by. This the doctor directed one of the servants to throw away. Another of the servants had, at a previous visit of the doctor, lent him a common rubber syringe, which had not been returned to its owner. A bottle containing tincture of aloes and myrrh was found in the room, and in the kitchen below another containing a small quantity of fluid extract of cotton root. Further search discovered the syringe concealed in a bureau which stood near the bed. When found it was *still wet.* To the discharge pipe of this syringe a strange nozzle was affixed, which bore evidence of having been filed off, though somewhat roughly, and which was found a few days later to fit quite well a female catheter which the jailer at Plymouth discovered as it dropped from its concealment upon the person of the prisoner at the time of his commitment, June 12th.

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[1] Fothergill, Am. ed., page 25.

[2] Read before the Massachusetts Medico-Legal Society, June 10, 1879.

With the assistance of Dr. J. W. Spooner, I made an autopsy, with the following as the result, omitting, for the sake of brevity, any unnecessary details.

Time of autopsy, 9.30 P. M. to midnight, June 8, 1878. Place, the room above described.

The only external evidence of violence was fresh blood-staining of the under-clothing about the genital organs. The mouth of the womb was sufficiently dilated to admit easily the index finger. The unruptured membranes were felt through the neck of the organ by the examining finger. The uterus rose above the umbilicus to the height usual in the seventh month of pregnancy.

An incision was made from the neck to the pubes. The blood following this incision over the thorax was frothy. The heart and lungs were removed. When opened, the heart was found empty and healthy throughout; the vessels connected with it were also normal. The lungs were hyperæmic; color red; vessels distended; the air cells filled throughout with bloody serum. In the stomach, liver, spleen, intestines, and kidneys nothing abnormal was discovered.

The uterus, vagina, and bladder were removed together. The bladder, which was healthy, was first dissected off. I then opened the vagina along its anterior median line to the os uteri. The mucous membrane of its lower third was deeply reddened, and abraded in places. The mouth of the womb was patulous, reddened, and somewhat excoriated. The neck of the organ, two and a half centimetres (usual) in length, was dilated throughout sufficiently to admit the finger; its inner surface was reddened and free from all mucus. Following up the vaginal incision, I next opened the uterus to the fundus, carefully avoiding any injury to the membranes, which were as yet entire. On the *right* side, front and back of the organ, I found the membranes dissected up from the uterine wall to the extent of some two thirds to three fourths of their whole connection with the interior of the womb. The lining of the uterus, from which the membranes had been detached, was reddened, and scattered over its surface were seen a number of bright red loose clots of the size of a pea or bean. The placenta was involved in this separation, its right edge, to the depth of two and one half to two and three fourths centimetres, around one third to one half of its circumference, being detached, opening uterine sinuses. No clots protruded from these sinuses, nor was blood as a layer effused over any part of the interior of the organ. The remainder of the placenta and the membranes were normally adherent to the interior of the womb. The placenta was of usual size and appearance, attached to the fundus.

The amniotic sac contained a well-developed female fœtus, thirty-nine centimetres in length, and weighing fully one and one third kilograms, floating in a clear fluid, and having a fresh, healthy appearance. Presentation cephalic, with the back of the fœtus to the abdomen of the mother. The ovaries were enlarged, bound posteriorly to the tissues by adhesions; when opened they were found to contain cysts and a corpus luteum.

The brain was anæmic; nothing unusual further was observed on careful examination of all its parts. The heart and kidneys were given on June 11th to Dr. R. H. Fitz for microscopic examination. The uterus and its appendages were transmitted at a later date to Dr. J. R. Chadwick.

On the 10th of June, an inquest by Justice Keith found Dr. Gilson guilty of attempted criminal abortion, causing the death of this woman. Two days later Gilson was indicted by the grand jury at Plymouth, and in default of bail was committed. The case came to trial in the superior court November 25, 1878. Pitman, judge; District Attorney French appearing for the State, Messrs. Pillsbury and Lord for the accused.

At the trial, servants testified to the fact of Mrs. H. taking both the aloes and myrrh and the cotton root, and to the various visits of the doctor upon her. The owner of the syringe identified the same, and testified that she had never before seen the strange nozzle. It was not in the box when she lent the syringe. To the defendant's excited efforts, in their presence, to resuscitate the woman; to the fact of his finally leaving her dead, telling the servants to say to any inquirers that Mrs. H. "died in a fit;" as well as to his direction to throw away the bloody water, there was ample testimony. It was in evidence that on the day before the death of Mrs. H. the doctor, in conversation with her mother and sister, to quiet their fears, told them that "he should not hurt Mrs. H. or kill her; she had only a slight trouble, and would be all right in a few days. She would not even have to go to bed."

As medical examiner, the writer detailed the manner and results of the autopsy, and testified that the appearances in the womb indicated that some force coming from without had with violence dissected up the membranes and edge of the placenta. Water or like fluid, alone or mixed with air, forcibly injected into the organ would cause the appearances seen at the autopsy. No evidence of disease was found, or cause of death other than the *uterine interference.* It is unsafe to inject any substance into the pregnant uterus. Air or gas, or any *liquid* containing the same, is especially liable to cause sudden death. Quite a number of fatal cases from this procedure have been reported of late. With this catheter [catheter and syringe shown] fitted to the filed nozzle which was found affixed to the syringe we should have an effective instrument for giving an intra-uterine douche. The catheter could be readily passed, going up between the membranes and the uterine wall, the discharge pipe of the syringe then being connected by means of this prepared nozzle, and the instrument is complete. The autopsy showed conclusively that there had been no considerable loss of blood, as there were no clots protruding from the sinuses, nor was blood effused over any portion of the interior of the uterus beneath the detached membranes. The death was undoubtedly instantaneous. If we assume this syringe with catheter attached to have been the instrument used, *air* during its working (as will be shown later) could get in at the point of insertion of the nozzle (roughly filed) into the catheter, and also at the bulb, from some imperfection in the same.

Air forcibly injected into the uterus in the condition in which this was found might enter the circulation through the uterine sinuses, and cause instant death. In such cases the precise mechanism of the mode of death has been a matter of some dispute among pathologists. In the case of this woman, the post-mortem appearances indicated at least the very strong probability of death from air embolism. In the case of Mrs. H. it should have been easy to diagnose her pregnant condition at this period of its advancement. It was easily made out at the autopsy before opening the body. Pregnancy was uncomplicated, and the position of the fœtus was favorable to hearing the sounds of the fœtal heart.

The redness of the interior of the uterus, from which the membranes had been detached, was the result of the sudden and violent stripping off of the same from the lining beneath; it was of recent origin, as were also the excoriations.

In justifiable abortion the method of inducing uterine contractions by the use of the intra-uterine douche, known as Cohen's method, was advocated and practiced to some extent thirty years ago, but to-day is almost universally condemned on account of its danger. By the profession in general the use of such injections is now chiefly limited to cases of extreme flooding after delivery, and to cases of septicæmia. Physicians sometimes err in diagnosing pregnancy. In uncomplicated cases such mistakes are infrequent so late as the sixth or seventh month.

Dr. J. W. Spooner, who assisted at the autopsy, corroborated the testimony above given, stating it to be his opinion that death resulted from an interference within the pregnant womb. He believed it most probable that the occurrence of death was by air entering the uterine sinuses. He saw no evidence of any disease of the womb calling for treatment. Cotton root has a popular reputation as an abortive agent. Mrs. H. was from six to seven months advanced in pregnancy. He believed the fœtus lived up to the time of the mother's death.

Dr. J. R. Chadwick testified that in his opinion the death of this woman was clearly attributable to interference with the pregnant womb.

In the organ itself there was no satisfactory evidence of the cause of death, but the conditions were such as to suggest the mode of its occurrence. The evidence derived from the autopsy shows that the membranes were not dissected up, as they usually are, by extravasations of blood behind them, as in ordinary cases of labor or spontaneous abortion, but something must have forced itself, or have been forced, between the uterine wall and the membranes. The evidence points to something from without. If from without, it must have been a fluid, and have been impelled forcibly through a tube which had previously been passed well up into the uterine cavity. This alone can explain the manner and extent of the separation of the membranes, involving as it did the edge of the placenta. The injection of a fluid into the uterine cavity is further made probable by the fact that no blood was found extravasated between the detached membranes and the uterine wall, and no clots were protruding from the open ends of the uterine walls, both of which would indisputably have been discovered had they not been washed away.

The separation of the after-birth is a laceration of the walls of the sinuses[1] so that the cavities are opened. These sinuses communicate directly, by large arteries and veins, with the blood-vessels of the mother's body. The manner and suddenness of the death can be explained on one only of three theories: that the woman died (1) of shock, (2) of embolism, (3) of the entrance of a large volume of air into the blood-vessels.

(1.) Although authorities state that death from shock may result from uterine and vaginal injections, yet no reported cases are known to witness in which this is clearly made out; hence we are led to believe that the term shock, which is now used in many cases where no demonstrable cause of death is found at the autopsy, has been applied in instances which the more scientific pathology of the present day would show to have been due to embolism, or air in the veins.

(2.) Embolism. Death from this cause is very rarely instantaneous; if it occurs, it must result from an arrest of a clot at or near the heart, and would be disclosed by careful autopsy. Besides, days would be required to allow any coagula that might be found in the uterine veins to become so disintegrated as to be taken up by the blood and carried forward toward the heart.

(3.) The entrance of air into the blood-vessels has been shown to have occurred in very many instances, and to have caused instant death. Many theories have been advanced to account for this result. I believe this to be the true explanation: The regurgitation of the blood in the large arteries, which takes place as soon as the impulse of the heart's contraction is removed, is competent to *close* the valves at the orifice of such vessels. Now if air is substituted for blood, the valves do not close, and the circulation of the blood is arrested, however vigorously the heart may continue to beat. Instant death is the result. Further, in this instance the detachment of a portion of the placenta opened some of the uterine sinuses, and the autopsy showed that they were not plugged up by coagula. It only remains to show that air may have been injected into the womb together with the water.

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[1] Demonstrated by a drawing shown in court.

If I take this syringe, which is alleged to have been used in this case, and place the orifice of the supply pipe in this basin of water, and the nozzle of the discharge pipe in this tumbler, it will be seen that numerous bubbles of air are constantly thrown out with the water upon every compression of the bulb. That this air enters through some defect in the bulb is made evident by the fact that the bubbles cease to appear the moment the entrance of air at this point is prevented by squeezing the bulb while it is under the surface of the water in the basin. Thus it appears that air must have been mixed with the water injected into the womb of this woman.

Again, take the catheter found upon the person of the accused, and the strange nozzle filed to fit the same; attach them to the same syringe, placing the end of the catheter beneath the water in the tumbler, and squeeze the bulb which is still under water so as to exclude any leakage of the bulb, and a perfect effervescence of fine bubbles will be seen to take place in the water in the tumbler. This air finds entrance between the nozzle and the catheter. The missing link in the evidence is thus supplied; for it is clear that if water through this syringe and catheter was injected into this woman's womb, air must have entered with it in large quantities.

The frothy blood in the thoracic integument so soon after death tends to confirm the above theory of the cause of death, but would not be of itself conclusive proof.

At the sixth or seventh month of pregnancy a physician of ordinary skill ought to diagnose an uncomplicated pregnancy, especially if his suspicions had been aroused. In this case the finger could pass through the neck of the womb and touch the membranes and head of the child, as was done by those who made the autopsy. Intra-uterine injections are especially dangerous in pregnancy. I am not aware that cotton root is used by the regular profession. Air embolism is rare. Had it occurred in any of the vessels of the brain death would not have been instantaneous. Physicians are liable to make mistakes in complicated or obscure cases. If they have done so they are not usually allowed to forget the fact.

Dr. J. B. Brewster, from the testimony of Drs. Gleason and Spooner, believed that the death of this woman was the result of the use of the intra-uterine douche. The most probable theory of the manner of death is the entrance of air into the uterine sinuses. He corroborated the testimony of the medical examiner as to the cause of the deep redness of the uterine surface from which the membranes had been detached, and also as to the cause of the vaginal excoriations or abrasions. He believed intra-uterine injections in pregnancy were dangerous. He also believed that pregnancy in this instance was easy of diagnosis. Cotton root as an emmenagogue is not generally used by the profession.

Dr. W. B. C. Fifield testified that, in view of the facts developed by the autopsy, it was his opinion that this death was caused by an interference with the process of gestation in the pregnant woman. The manner he believed to be by air embolism. The mixture of aloes and myrrh is a warm, stimulating purgative, with a limited use as an emmenagogue. As such it produces a flow of blood to the uterus, which in pregnancy sometimes causes abortion.

Dr. R. H. Fitz testified that he examined microscopically the heart and kidneys given him by the medical examiner, and found in them no evidence of disease. He corroborated the testimony of the other medical witnesses as to the danger of injections of water and air into the womb in pregnancy, and as to the improbability that this woman's death was due to embolism proper. He did not think that in any case, as the result of the intra-uterine douche, a clot could be instantaneously formed and carried into the circulation and cause immediate death. In case of sudden death from embolism, careful autopsy would reveal the embolus. If large, it would be found near the heart. In case of air injected into the uterine sinuses, it would be found in the lungs and right side of the heart. A small amount, causing death, would produce that result gradually; a large amount *at once*. To find the air "it would not be absolutely necessary to examine the lungs, for in certain cases the examination of the heart suffices."

Drs. G. F. Bigelow and J. E. Graves were called by the defense; they testified to the fact that physicians are liable to be deceived in diagnosing pregnancy. Mistakes in this direction have been made by men of all degrees of skill and experience. Cases of suppression of the menses have been known to continue for months, to be attended with abdominal enlargement, and sometimes accompanied by local discharges. In case of a healthy woman in the seventh month of pregnancy, her physician would be likely to know her condition. Both these witnesses concurred in the opinion of the medical examiner and others as to the cause of death.

The story of the prisoner was in some directions not only inconsistent, but highly improbable. Though he professed to be a regular graduate in medicine, and that he had had obstetric experience, admitting that this woman had been under observation during the last five months of her life, and that he had made what he called "manual examinations" with the object to determine this point, he nevertheless alleged that he was *unable* to make out her pregnant condition. Accordingly, at first, he had been treating her for suppression of the menses, and later for a "uterine leucorrhœa," as he termed it. He admitted having been to Hingham on three several days during the four weeks just previous to June 8th, at each visit administering a vaginal douche; while on that day, the day of the death of the woman, with the catheter and syringe, connected by means of the nozzle prepared for the purpose, he gave an intra-uterine douche, at length giving up to Mrs. H. the instrument, which she herself applied, as he walked away from her bed toward the window. While using it she fell back, and instantly expired.

After a review of the testimony by counsel, the case was submitted to the jury, who in an hour returned a verdict of guilty. The defendant's sentence was six years' imprisonment at Concord.

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RECENT PROGRESS IN THE TREATMENT OF DISEASES OF THE THROAT.

BY F. I. KNIGHT, M. D.

The American Laryngological Association. — One of the best evidences of progress in the treatment of throat diseases is the recent formation in this country of a national association for the promotion of knowledge in all that relates to diseases of the upper air-passages. This is the first national association devoted exclusively to laryngology and allied subjects in the world, though some European societies have *sections* devoted exclusively to it.

A few gentlemen met at Buffalo last year for organization, but the first annual meeting was held this year, June 10th, 11th, and 12th, at New York. On the 10th, after a brief address of welcome by Dr. Lefferts, papers were read by Dr. J. Solis Cohen, of Philadelphia, on An Analysis of the Lines of Muscular Force controlling the Glottis, illustrated by an improvement of Oertel's model, and patients suffering from laryngeal paralysis; on Retropharyngeal Sarcoma, by Dr. F. I. Knight, of Boston; on Nasal Catarrh, by Dr. T. F. Rumbold, of St. Louis; on A Perfected Sponge-Carrier, by Dr. L. Elsberg, of New York; on Chorea Laryngealis, by Dr. G. M. Lefferts, of New York; and on Naso-Pharyngeal Polypus, with Demonstration of Cases, by Dr. R. P. Lincoln, of New York.

On the evening of the 10th, Dr. Louis Elsberg, president of the association, very essentially and most charmingly aided by his beautiful young wife, gave an elegant reception to the association at his residence on Fifth Avenue, distinguished members of the medical profession and others being invited to meet it. Among the ornaments of the supper-table, the confectioner showed remarkable skill in designs of Tobold's laryngoscope, a large larynx, and Elsberg's perfected sponge-carrier. Somehow, the medical man is never supposed to be susceptible to unpleasant suggestions of his profession!

On the 11th of June the president opened with his annual address, giving a very complete and very interesting history of throat diseases, and instruction in regard to them in this country. Then followed on this and the next day papers by Dr. E. Cutter, of Cambridge, on the Larynx and Uterus; Dr. Carl Seiler, of Philadelphia, Researches on the Anatomy of the Vocal Cord; Dr. J. H. Hartman, of Baltimore, on Laryngeal Hæmorrhage; Dr. F. H. Bosworth, of New York, on a Case of Primary Tubercular Ulceration of the Pharynx followed by Laryngeal and Pulmonary Tuberculosis; and by Dr. E. L. Shurley, of Detroit, on the Galvano-Cautery in the Treatment of the Nose and Pharynx, with exhibition of instrument. Other papers were read by title, and will appear in the transactions of the society.

On the evening of the 11th, the association dined at Delmonico's, by invitation of the members residing in New York. The meeting in every respect was a success, and we think every man felt repaid for coming.

A committee on nomenclature was appointed to report next year. The committee on nomination of officers recommended that the officers elected at the preliminary meeting at Buffalo should be reëlected for the ensuing year, with the understanding that no precedent was thereby established. So the officers of the society for the ensuing year are: president, Dr. Louis Elsberg, of New York; vice-president, Dr. F. H. Davis, of Chicago; secretary and treasurer, Dr. G. M. Lefferts, of New York. The office of librarian was also created, to which Dr. F. H. Bosworth, of New York, was elected.

The transactions of the association, including the papers read and discussions upon them, will appear in the St. Louis *Medical and Surgical Journal*, and afterwards appear as a volume of reprint.

Incarceration of the Epiglottis in Fatal Cases of Spasm of the Larynx in Children. — Dr. J. Solis Cohen[1] directs attention to this mechanical factor in infantile spasm of the larynx, which was the immediate cause of death in two cases under his care. In one case an intense paroxysm occurred in his presence, and on putting his finger deep into the child's throat he felt the epiglottis so forcibly drawn by the spasmodic action of the aryteno-epiglottic muscles that its free edge had become wedged between the posterior face of the larynx and the wall of the pharynx, occluding the larynx completely. Carrying the finger to the left side of the larynx, he found it comparatively easy to free the epiglottis from its incarcerated position, and with the ensuing deep inspiration of air the impending asphyxia was averted. The nature of the difficulty was explained to the mother, who was instructed in the manipulation necessary to overcome it; but the child finally died in a paroxysm. In the second case tracheotomy was unfortunately deferred twenty-four hours, in order to test the efficacy of large doses of bromide of potassium; and shortly before the time fixed for the visit the child died in a paroxysm, which the mother was unable to overcome by manipulation, although she had previously succeeded in elevating the epiglottis in several paroxysms. Dr. Cohen therefore is inclined to believe that the spasm of laryngismus affects the aryteno-epiglottic muscles, in some instances at least, as well as those muscles which close the glottis, and that the incarceration of the epiglottis continuing after the relaxation of the spasm may be the immediate cause of death. In undoubted cases of this kind tracheotomy may be absolutely indicated as necessary to arrest asphyxia in a recurring paroxysm of spasm.

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[1] The Medical aud Surgical Reporter, March 16, 1878.

Syphilis of the Larynx. — Dr. W. Macneill Whistler[1] remarks that there can be no doubt that certain phenomena of a more superficial nature do occur in the larynx in the earlier periods of syphilis, while deeper and more destructive ones mark a more advanced stage; and this with sufficient constancy to justify certain types being grouped together to represent certain periods. In the first few months after infection the lesions found by Whistler in eighty-eight cases were: —

(1.) Catarrhal congestions simulating those arising from ordinary causes. (2.) Congestions accompanied by diffuse redness and swelling. (3.) Mucous patches of various types. (4.) More chronic inflammations, occupying as it were the period of transition, the signs of which are diffuse redness, thickening, and ragged ulceration, especially of the vocal cords.

The essential points which distinguish syphilitic catarrhs from others associated with diffuse redness and swelling are these: —

(1.) The redness is often more limited in its distribution, and it is not so bright. It is often rosy in the early stages, becoming darker in cases of longer standing. It is not vivid unless accidentally inflamed. (2.) They are accompanied by a general puffiness instead of great swelling. (3.) There are no very acute symptoms. Dr. Whistler's observations have thoroughly convinced him that mucous patches occur in the larynx oftener than is allowed by some authorities. He found them in twenty-four out of eighty-eight cases of secondary syphilis, while he did not find them in any case of eighty-two patients who were in the transition or tertiary period of the disease, a fact which he thinks is sufficient to refute the theory that *all* superficial lesions of the larynx may occur indiscriminately at any stage of the disease. In the twenty-four cases the lapse of time between infection and the date of their occurrence was as follows: in the first month and a half, three cases; at two months, one case; at four months, four cases; at five months, one case; in the sixth month, four cases; one case at eight months; two at ten months; and two at the end of one year. In six cases the precise time after infection was not ascertained. The mucous patches were upon the epiglottis in ten cases, and the vocal cords were also the seat of these lesions in ten cases. One was on the glosso-epiglottic fold. They were upon the arytenoids in four cases, twice upon the inter-arytenoid fold, and twice upon the ventricular bands.

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[1] Medical Times and Gazette, 1878, vol. ii. pp. 343, 372, 405, 535, 650.

Those which most closely resemble the opalescent patches which are found upon the pillars of the fauces, on the soft palate, and tonsils occur most frequently on the epiglottis and its folds, and on the arytenoids. They affect more often the upper surface of the free border of the epiglottis. They are seen there as small, oval, or roundish elevations, rising gradually towards their centre, about the size of a pin's head or a shot, of a dull whitish-gray color, not unlike the stain of nitrate of silver. On the arytenoids there are two forms. When situated on the posterior surface they are still flat, opalescent patches, but larger in size. None of these attain any degree of prominence unless they become irritated. Whistler has seen them then get thickened, and stand out as red papules with an ulcerated surface, like hypertrophied patches in other parts of the body. These true mucous *papules*, or condylomata, occur also apparently without irritation, and from the very first upon the anterior surface and upper border of the inter-arytenoid fold, upon the anterior surface of the arytenoids, and upon the ventricular bands just in front of the arytenoids. When they occur in these situations they appear as circumscribed elevations or papules, firm, grayish, or reddish-gray. The summit of these papules is covered with a scanty secretion like the others mentioned. On the vocal cords they occur as small opalescent bodies, more or less elevated, especially when on the edges, or arranged in lines when on the upper surface. These gray streaks stand out upon the reddened cord, giving to it a mottled look, and from their form they might be called *linear patches of the cords.* Another form that they have when in this situation is a circular erosion. The color of this is red, and contrasts strongly with the whiter surface. Sometimes it is gray with a red, excoriated-looking centre. They are all slightly above the level of the surrounding membrane. Sometimes they are prominent on their borders with a depressed centre.

In addition to constitutional treatment Whistler advises the local application of nitrate of silver, sulphate of copper, vapor of benzoin, or spray of chloride of zinc. He then describes what he calls the "relapsing ulcerative laryngitis of the early and intermediate periods." The ulcers are deeper, with ragged and thickened edges; are small, irregular in shape, and often multiple; are, compared to a later stage, superficial, and unaccompanied by the necrosis and perichondritis produced by the burrowing ulcer of a later stage; there is much thickening, and often warty growth; are chronic and relapsing.

Iodoform Pastilles. — Dr. Whistler[1] recommends pastilles containing two grains each of iodoform made with a gelatine base, which he prefers to all others. The formula for this base is refined gelatine, one, glycerine, two and one half, flavored water, two and one half, liquid cochineal *q. s.*, to be made into a paste. The advantage of this over the ordinary lozenge is that it is flexible, and perfectly unirritating to the mouth, the gelatine affords more relief to dryness of the mucous membrane than other vehicles, and they can be made by any druggist, as no drying oven or special apparatus is necessary.

Laryngeal Consumption. — Heinze[2] contributes his observations made in the autopsy-room of the University of Leipzig for the purpose of contributing to the solution of the question whether tuberculosis of the mucous membrane of the larynx and trachea is identical with consumption of these parts, or whether the latter disease is but a consequence and further development of catarrhal and inflammatory processes within the air-passages. The author has made very careful statistics, and very accurate microscopical examinations of a large number of specimens of this disease, his observations being based on not less than four hundred and seventy-five cases.

Ulcerations within the larynx were observed in 30.6 per cent., within the trachea in 8.0 per cent. of all the cases of phthisis observed. Men are more frequently attacked than women. Ulcerations of larynx and trachea in pulmonary phthisis are most frequently met with in patients between twenty-one and thirty years of age. They are extremely rare in childhood.

In ninety-four per cent. of all the cases examined there were either tubercular processes in larynx and trachea, or in either of them alone; in sixty only the tubercular origin of the ulcer could not be demonstrated. Tubercular *infiltration* was met with in 52.5 per cent. of all cases examined, most frequently on the ventricular bands and ary-epiglottic folds. Tubercular *ulcers* were found most frequently on the vocal cords.

Heinze concludes from his observations that, though there may be found non-tubercular ulcers in cases of pulmonary phthisis, their existence is quite accidental and unimportant, whilst the *large destructions of the larynx which hitherto have been called with the common name of "laryngeal consumption," are exclusively due to tuberculosis of the mucous membrane of the larynx.*

In the last chapter, which treats of the Pathogenesis and Ætiology of the disease, the author comes to the following conclusions: —

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[1] Medical Times and Gazette, 1878, vol. ii., No. 1483.

[2] Brochure, Leipzig, 1879. London Medical Record, January 15, 1879.

(1.) A *primary* tuberculosis of the larynx most probably does not exist.

(2.) It is not possible to conclude from the laryngoscopic appearance of an ulcer alone whether its nature is tubercular or not.

(3.) A cure of the laryngeal tuberculosis will most probably never be obtained.

(*To be concluded.*)

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RECORDS OF THE BOSTON SOCIETY OF MEDICAL SCIENCES, NOVEMBER, 1878, TO MAY, 1879.

JAMES J. PUTNAM, M. D., SECRETARY.

TUESDAY, NOVEMBER 26, 1878. DR. BOWDITCH showed two pieces of *apparatus for plethysmographic measurements* devised by him for use in certain experiments upon the circulation of the blood in the lungs, to be described elsewhere more at length.

The first consisted of a glass test-tube suspended from a coiled spiral spring, so adjusted that the tube would rise or fall at the same rate that the level of fluid poured into or withdrawn from it rose or fell, with relation to the tube itself. In this way the level of the fluid could be maintained constant with regard to other pieces of apparatus outside, the advantage of which in plethysmographic experiments is apparent. This method was said to be simpler than those of Mosso and Von Basch, which were also explained.

The second piece of apparatus consisted of a small bucket suspended from a spiral spring and armed with a projecting bit of metallic tinsel foil which bore against a brass rod, threaded with an extremely fine thread, the depressions of which were filled up with sealing-wax, thus leaving a number of parallel fine lines exposed. Both the rod and the tinsel formed part of an electric circuit, which was closed whenever the pail, in descending from the weight of fluid poured into it, brought the tinsel into contact with one of these exposed lines, and the rapidity of the descent could thus be accurately noted on a revolving cylinder. The entire apparatus could be inclosed in a glass jar and exposed to the same pressure with the lungs whose changes of vascular capacity it was proposed to measure.

DR. FITZ showed some *microscopic specimens from the medulla oblongata of a patient who died of hydrophobia* at the Massachusetts General Hospital. The specimen showed accumulations of lymphoid cells in little masses resembling those described by Dr. Gowers, of London, and, in greater number than these, lines of similar cells occupying the perivascular sheaths.

DR. FLETCHER, of Pepperell, showed *a microtome* of his own invention, a full description of which will be published in the Boston Medical and Surgical Journal.[1]

DR. WOOD showed a *specimen of cloth which he said contained a large amount of arsenic*, the use of which had given rise to severe symptoms of arsenical poisoning, — inflammation about the nose and mouth, swelling of the lids, etc. The material was "Foulard cambric" of a light navy-blue color.

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[1] Vide vol. c., page 253.

Dr. Wood was unable to answer Dr. Lincoln's question as to whether the dyes used to color the covers of certain journals, especially *Knapp's Archives*, contain arsenic.

Dr. Bolles showed *a specimen of guarana in the natural state*, as well as a sort of rasp, supposed to be made from the tongue of some one of the larger fishes, with which the natives file off any desired dose.

Tuesday, December 17, 1878. Dr. Garland read a paper on *pharyngeal respiration*, describing some experiments recently made by Professor Bowditch and himself at the physiological laboratory of the Harvard Medical School.

In the first instance, it had been discovered by Mr. Walker, the assistant in the laboratory, during the course of some other experiments which had necessitated the complete severance of a dog's trachea and the entire removal of the upper part from connections with the chest, that air still passed in and out of the mouth. Careful examination confirmed this observation, as well as the notion that these phenomena were due to rhythmical changes in the capacity of the pharynx. Investigations under proper precautions, with the aid of several Marey's tambours, showed that these changes attend each act of respiration. On comparing the time of the pharyngeal movements with that of the movements of the chest, it was found that —

(1.) The pharyngeal *expansion* precedes pulmonary inspiration, though it may not be completed before inspiration begins. It coincides with the previous expiration, or with the succeeding respiratory pause, according to the type of breathing at the time.

(2.) The pharyngeal *contraction*, in the majority of cases, coincides mainly with inspiration, and seems to be essentially an inspiratory phenomenon.

Dr. Garland then discussed the analogy between these movements of the pharynx of the dog and the so-called throat respiration of the frog, illustrated in a recent article by Professor Martin, of Baltimore. Dr. Garland was not convinced that these movements in the dog subserve any useful purpose, but they are of great interest from a biological stand-point as revealing a new and unsuspected relationship between the two types of "throat" and thoracic respiration. The details of the experiments reported will be published at an early date in *Foster's Journal of Physiology.*

In reply to Dr. Edes, Dr. Garland said that the amount of air entering was not always so very small. The motion of the lever of the Marey drums was sometimes so great that it was thrown off the paper. He also said that Professor Wyman had shown, though by crude experiments, that movements go on in the pharynx, though their amount was not measured.

Dr. Bowditch said that the apparently antagonistic movements may in fact indicate a sort of peristalsis, which embraces the movements of both pharynx and chest.

Dr. Putnam showed *a modified pendulum myograph* devised by Dr. Bowditch and himself. Its main peculiarities were that the pendulum itself consisted of a sheet of plate-glass, and that both this and the stage bearing various sliding connections could be moved up and down by a rack and pinion, so that the position of slips of smoked paper with relation to the writing pens playing in front could be altered. The use of this arrangement of course rendered it necessary that the cards written upon should be ruled with lines converging towards the centre of motion of the pendulum, and cards of this kind had therefore been lithographed, and the spaces between the lines corresponded to .01″ of time.

The only experiments tried hitherto with this apparatus had been as to the reliability of Marey's drum for use in time experiments, and on the time of the tendon-reflex.

The reliability of the drum had been found to be very great, the delay with the combinations employed amounting to about .01″.

With regard to the "tendon-reflex," a shorter time had been found to be occupied, in certain cases, than any hitherto reported, amounting sometimes to not more than .02″, after withdrawal of the latent period of the muscular contraction. In view of the extreme shortness of this period, which seems almost to preclude the idea that the reflex is of spinal origin, Dr. Putnam suggested that both the rival views that have been advanced may be correct, the beginning of the reflex contraction being perhaps due to direct excitation of the muscles, or possibly to excitation of the spinal ganglias, as maintained by Burckhardt, and the rest of it to spinal influence.

TUESDAY, JANUARY 25, 1879. DR. AMORY read a paper on *the hæmatinic properties of dialysed iron*, to be published elsewhere at length.[1]

TUESDAY, FEBRUARY 18, 1879. DR. BOWDITCH read a paper upon *the influence of respiration upon the pulmonary circulation*, which is reserved for publication elsewhere.[2]

In reply to Dr. James, Dr. Bowditch said that he did not mean to assert that in living animals exactly the same phenomena occurred as he had described. On the contrary, he presumed that in fact more blood instead of less passes through the lungs at the first moment of inspiration.

In reply to Dr. Wadsworth, Dr. Bowditch said that a notable amount of blood was lost by imbibition in passing through the lung, in experiments made after the death of the animal, as these were.

In reply to Dr. Jeffries, Dr. Bowditch stated that in life the rate of passage of the blood under various circumstances was probably modified somewhat by the action of vaso-motor nerves, but not so much as to reverse the observed results. After an hour or so the lungs became quite œdematous, and soon useless. No attempt was made to keep the jar at the temperature of the body.

DR. JAMES spoke briefly of some investigations as to *the function of the membrana tympani in informing us as to our position with regard to objects around us.* After referring to the great power of drawing conclusions of this sort which has been claimed for the blind, and which had been traced to the skin of the face, having been said to be impaired by veiling the head, he gave an account of experiments made on some of the inmates of the Perkins Institution for the Blind at South Boston, as well as upon healthy persons. By them he had traced this faculty almost exclusively to the ear, and had found that absolute closure of the external meatus by cotton and putty annulled it.

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[1] Vide Boston Medical and Surgical Journal, April 3, 1879.

[2] Vide Foster's Journal of Physiology.

The feeling by which this recognition of objects is brought about is a minimal degree of that produced by a hollow shell held over the ear, but is so slight that it is not at first recognized as sound, or even referred to the ear at all. The most plausible theory with regard to the matter is that when a body is held near the ear the waves of air which are continually reaching it from various sources are suddenly changed in their force, and a new system of waves set in motion.

DR. BOWDITCH suggested that one source of the ever-present waves to which Dr. James has alluded might be the various movements of the heart, blood, etc., taking place within the body itself.

DRS. CUTLER, BOWDITCH, JEFFRIES, and others spoke of having noticed to a marked degree in themselves this power of telling whether a door is open or shut, in the dark, and Dr. Cutler had noticed a sensation of tension in the ear in connection with the effort to exercise this faculty.

MR. MINOT adduced a fact to show that this faculty may also be possessed to a considerable degree by the skin of the face.

DR. JEFFRIES showed *the colored prisms proposed by Delbœuf to correct color-blindness.* The effect in helping to distinguish red from green was but little greater than that of examining them by gas-light. He did not think they could prove of practical use.

TUESDAY, MARCH 18, 1879. DR. DWIGHT read a paper upon the *structure and development of the torcular Herophili.* It had been found by Rüdinger that the longitudinal sinus does not stop with the torcular, but is continued onward, turning sometimes to the right, sometimes to the left, the straight sinus taking the opposite course, and being likewise continued through the torcular. The object of the present investigation had been to study these questions from the developmental point of view, since it is well known that some of the asymmetries met with in adult animals are not present in the embryo.

The examination of a number of fœtuses had, however, shown that at a very early age there is a want of symmetry in the torcular, its cavity being separated by a more or less complete partition into two unequal parts. Of these, the right is commonly the larger, but it is in continuation sometimes of the superior longitudinal sinus, sometimes of the straight sinus. The probable cause of this condition was traced back to the changes in the venous arrangement which precede the passage of the blood through the internal jugular. The escape of the blood from the head is at this period probably easier on the right side than on the left.

In reply to Dr. Green, Dr. Dwight said that the degree of the asymmetry is about the same in adults as in the embryo; also, that he could not agree with Rüdinger that the complete separation of the two parts of the torcular is common in the adult, both this and perfect symmetry being about equally rare.

The appearances in the skull which are mainly relied upon by Rüdinger do not always correspond with the condition of the sinuses themselves.

Dr. Green asked with regard to the constancy of position of the little emissary vein with relation to the torcular, and spoke of a case where caries of the middle ear had led, probably, to inflammation of the lateral sinus, and finally to the formation of a small abscess beneath the periosteum and close to the bone, on the outside of the skull over the occipital protuberance, which had presumably found its way to the surface by means of this little vessel.

Tuesday, April 15, 1879. Dr. Warren showed a number of *microscopic specimens* from a tumor of the roof of the mouth, which he stated resembled both the *cylindroma* and the *plexiform sarcoma, as described by Billroth.* The tumor was of the size of a Messina orange, and had grown steadily during seven years. The mucous membrane over it was healthy. At the operation it was peeled off without difficulty by the finger. It had been hardened in Müller's fluid. The typical portions of the growth were characterized by the presence of a gelatinous matrix traversed by delicate bands made up in part of columnar masses of cells. Other parts were almost wholly fibrous, with a few cells scattered here and there, while others, again, were wholly cellular. The cells sometimes resembled epithelium, but were sometimes round. Dr. Warren did not, however, consider the growth as distinctly epithelial or myxo-adenomatous.

Dr. Fitz thought the structure not distinguishable from epithelial growth, with partial gelatinous degeneration.

Tuesday, May 20, 1879. Dr. Sabine showed a microscopic specimen of *acute miliary tuberculosis of the uterine muscular tissue*, a disease which has been said never to occur, though a more chronic form is not rare. The uterus had been found considerably enlarged, and a miscarriage had taken place four weeks before death. Although the case was one of so-called general tuberculosis, no tubercles had been found in the liver, in spite of careful searching. Many of the tubercles had begun to undergo cheesy degeneration. Some of them contained giant cells.

ELLIS'S DISEASES OF CHILDREN.[1]

The American reprint of the second edition, which appeared in 1873, was published by Lindsay and Blakiston, and received at that time a review in this journal. The present (American) edition comes in an enlarged form, and from different publishers. The text shows evidences in many places of revision on the part of the author; and many additions have also been made, noticeable particularly in the portions devoted to the treatment of disease.

In Chapter I., General Observations on Management and Diet, there are some additions on the subject of artificial food. Condensed milk is mentioned for the first time, to which his own experience is decidedly favorable. Of

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[1] *Practical Manual of the Diseases of Children.* By Edward Ellis, M. D., Late Senior Physician to the Samaritan Hospital for Women, and formerly Physician's Assistant to the University College Hospital. (London Rep.) Third Edition. New York: William Wood & Co., 27 Great Jones St. 1879.

Liebig's food he manifests a great dislike, and "heartily indorses Dr. Chambers' witty condemnation, who says, "Sensible people will be content to leave the recipe for some coming race who may prefer art to nature." In Chapter X., on Dietary, at the end of the book (new in this edition), the author writes again on this subject as follows: "Laputa never devised anything more preposterous than Liebig's food for infants. Dr. Chambers made this remark, and, despite the praise of other high authorities, I agree with Dr. Chambers. Nevertheless, let those use it who admire it." Whether these conclusions are based upon experience, or otherwise, it is not said.

Those who are familiar with the teachings of the more modern and progressive school of dermatology will find much to object to in many of the author's views as expressed in Chapter III., on Skin Diseases.

Erythema, for instance (red gum being wrongly given as a synonym), is classed amongst the exanthemata, as is also urticaria. In the section on Eczema a "syphilitic variety" is described, which, it is hardly necessary to say, does not exist according to the best authorities. The author continues to define impetigo as "a suppurative inflammation of the hair follicle," and as contagious. We find also the commonest site of prurigo stated to be the neck and shoulders. Under the head of pityriasis several very different processes are evidently confounded; and as the article is very brief we will quote it in full: —

"Pityriasis (dandruff) is chronic inflammation of the skin, attended with itching and abundant desquamation of small scales or scurf. The head is the part commonly affected. If the disease becomes chronic the hair gets thin. Pityriasis capitis is not uncommon in newly born infants; there is no constitutional disturbance. Pityriasis rubra and versicolor are varieties, chiefly marked by their color, the former red, the latter yellowish-brown."

Judged by the same standard, the author's description of the differential symptoms of sudamina and miliaria is an equally confused one.

The statement in a former edition that "eczema is inflammation of the sweat follicle" has been modified by the addition of "according to some authors, and catarrhal inflammation according to others." The author's assertion that "local applications are of little service in psoriasis" differs from that of other authorities on the subject.

The use of salicin and salicylic acid in the treatment of rheumatism, and of the "cooled bath" in the treatment of scarlet fever, typhoid fever, and and other febrile diseases, receives attention in this edition. The use of the wet sheet and the internal administration of sulpho-carbolate of sodium, as a prophylactic in scarlet fever, are also mentioned for the first time. The author thinks that this last remedy deserves further investigation.

In the section on Diphtheria, the description of the anatomical character of the "exudative matter" differs somewhat from that given in former editions, but it cannot be regarded as any improvement. It consists, according to the author, "of epithelial and granular cells with granules of fat and protein. Sometimes fibres and vegetable growths are present."

There is evidence of a full appreciation of stringent rules of disinfection in this disease; but the advice that "all persons passing from the sick to the healthy should fumigate themselves and their clothes with sulphur vapor" would subject physicians in attendance upon such cases to a rather severe ordeal. The author's suggestion of burning sulphur every four hours on live coals or a hot shovel, for half an hour at a time, would be considered by many as an equally undesirable proceeding to carry out in the sick room. The use of a continuous nasal douche, recommended in cases of discharge from the nostrils, would, certainly in many instances, be accompanied by insurmountable difficulties. "A glass syringe," the author writes, "is merely playing at it." The author advises "carbolic acid, just made fluid with a little water, or, still better, with glycerine," as "the best local application we possess; and it is hard to overestimate its value." The next best remedy he considers to be the strong tincture of iodine topically applied. The use in a similar manner of argent. nitrat. (℈i. ad agave ʒi.) is also highly spoken of. Such powerful local applications have been for the most part discarded in the treatment of diphtheria; at least, we do not find them sanctioned in the later writings of the best authorities.

Among the diseases not to be confounded with diphtheria, we find included "erysipelas of the throat (a rare disease), from which," he writes, "the diagnosis is not easy; but in erysipelas there will be more puffiness and swelling of the throat and surrounding parts, which are besides often œdematous; the exudation is less membraniform, and the tongue dark brown or black, dry, and deeply fissured."

The author's views on the use of bleeding (general and local), antimony, and blisters show evidence of a radical change, when compared with those expressed in the previous edition. This is particularly noticeable in the treatment of the acute inflammatory diseases of the respiratory organs. Whereas they then formed a frequent feature in the therapeutics of those diseases, he may now be said to have completely abandoned their use. In the section on Pneumonia, he writes, "For my own part, I can only say that for more than three years I have never used leech nor blister to a sick child, and I think three leeches and six blisters represent all I have to answer for in adults during the same period." This change has necessarily entailed a revision of the treatment of several diseases. The author's use of calomel has also become much modified and restricted. In the place of the above-mentioned "antiphlogistics" we find the tincture of aconite recommended very much more extensively by him than before; and the power of cutting short the disease is attributed to it in acute tonsillitis, it being stated, on the authority of Dr. Ringer, that "when caught at the commencement it rarely fails to succumb in twenty-four or forty-eight hours." In the treatment of catarrhal pharyngitis also, he writes, "Tincture of aconite, in drop doses, at two-hour intervals, internally, and a wet compress externally, will as a rule speedily cure sore throat." In the treatment of tubercle of the brain and inflammations of the spinal cord, the use of setons, issues, and tartar-emetic ointment is omitted in the present edition. In the section on Pertussis, we are told that there is increased dullness on percussion at both bases. Upon what grounds such a change in the physical signs is to be expected the reader is left to infer for himself. The difference in the size of the two sides of the chest, after the absorption of a large pleuritic effusion, is still attributed by the author to the hypertrophy of the healthy lung. In the section on Pneumonia we find given, as one of the signs by which this disease is to be diagnosticated from bronchitis, "the comparative freedom of the breathing, — that is, the breathing being less labored in pneumonia, though rapid." In a majority of cases, certainly, such a rule would not hold good.

There are but few changes to chronicle in the chapter on Diseases of the Food Passages and Abdomen. The diseases of the stomach are included under the head of dyspepsia, gastritis, subacute gastritis, and gastric catarrh; those of the intestines under diarrhœa, enteritis, "*pur et simple*," and dysentery. The description of symptoms under these different heads is compressed into a few lines, and is not calculated to impress the reader with the practicability of always distinguishing one form from the other. A more generous space is devoted to the treatment. There are some remedies recommended in this chapter for the first time, among which we will cite the use of ipecac in dysentery, and of liquor hydrargyri per chloridi and Fowler's solution in certain forms of diarrhœa in children (the last two again on the authority of Dr. Ringer).

The author speaks in high terms of the favorable results obtained by him in a quite large experience with so-called "eclectic remedies." In the chapter on Tubercular Meningitis, he writes: —

"In a disease where treatment of all kinds is so very unsatisfactory, I would advocate a further trial of the tinctures of gelsemin and scutellarin. I have made pretty extensive trial of the concentrated tinctures of B. Keith & Co., of New York, and I am persuaded that in the 'eclectic medicines' we have remedies too little known, and the value of which will be more and more appreciated. I have found the extremely disagreeable taste of some of the concentrated tinctures a disadvantage; but it can generally be surmounted by glycerine, oil of lemon, or other devices of elegant pharmacy. In children this is essential. We have no right to give children filthy doses, when a little skill and consideration can make this nauseous drug pleasant. With this 'caveat' I earnestly advocate a sensitive use of some of these potent agents. Gelsemin is a nervine tonic, of marked value in many convulsive affections. Scutellarin soothes and quiets the irritability of the nervous system, lessens cerebral excitement, and at the same time excites diaphoresis and diuresis. Their alterative use and their use in combination I am testing as opportunity offers. The dose of Keith's tincture of gelsemin for a child five or six years old is one drop; the same of scutellarin." Effectual diuretic action is also attributed to the tincture of eupurpuria (eupatorium purpureum), in four-drop doses. In the list of drugs at the end of the book, many others of these remedies are credited with valuable therapeutical properties.

The author's statement of the great value of phosphorus in "neuralgia, epilepsy, hysteria, chorea tuberculosis and its many manifestations, scrofula, defective nutrition, and debility generally," in older children, should, we think, be accepted with reserve, inasmuch as he uses it always in combination with other active drugs, as quinine, iron, and nux vomica, the mixture with the two last of these being his favorite prescription where there is present anæmia or chlorosis.

Chapter IX., General Therapeutic Hints and Formulary, is the longest in the book. The few general hints given are very good. In the formulary much is told us on the subject of drugs, which are arranged in groups under conventional heads; and in addition there are given two hundred and thirty-three prescriptions. Several of these are taken from old authors, as Evanson and Maunsell, Underwood and Dewees; some are credited to more modern writers on children's diseases, as Trousseau, Bouchut, West, and Meigs; a few bear the names of writers less known to fame on this side of the water. The majority, however, are his own. At the head of the formulary it is stated that the doses are such as to be generally suited for children three years old; and that when a lower and a higher dose are given the lower dose is intended for a child about three, the higher for a child nine or ten years old. If this rule is literally followed, there will be found several prescriptions where the doses would be usually regarded as unnecessarily large; in some cases dangerously so. As belonging to this class we would enumerate: —

Formula 86, where one grain of the extract of belladonna is prescribed for a child nine or ten years old every two or three hours; formula 19, where the dose of extract of conium is given as one grain every four to six hours, for a child three years old; formula 106, containing three quarters of a grain of powdered digitalis, and no age mentioned, copied from Trousseau. The same exception is to be taken to another prescription of Trousseau's, introduced in the treatment of chorea, and known as his "syrup of strychnia," which we believe to have been abandoned by nearly, if not quite all, writers on diseases of children as unwarrantably dangerous. The original formula, as is well known, contains one grain of the sulphate of strychnia to two and one half ounces of syrup, the dose being two drachms, to be given in the twenty-four hours, with rules for gradual increase of this amount until toxic effects are produced. It is made doubly dangerous in the present book by not mentioning the proper age at which it should be given, and by giving directions for its use three times a day, in place of once daily, in divided doses. The vehicle is wrongly quoted as three and a half ounces of syrup instead of two and one half; but this, fortunately, would enure to the patient's advantage. Ten grains of the citrate of iron and quinine, and one drachm of the syrup of the iodide of iron, in formulæ 33 and 34, would be generally regarded as unnecessarily large doses for even the oldest children.

Formula 16 has been wrongly copied from Dewees, the menstruum being given as three drachms instead of three ounces, whereby the dose of laudanum recommended to be given every hour would be dangerously great. In a prescription of Dr. T. King Chambers, quoted in the treatment of diarrhœa, the author has substituted minims of tincture of opium in place of drops, by which the dose in the original formula has been doubled. In formula 66 it is evident that infusion of arnica should be four ounces in place of four drachms, *Solutio* nucis vomicæ, formula 78, should of course read *extract.* nucis vomicæ.

In the prescriptions that are peculiarly the author's, the quantities given contain only one dose; so that to change them into a form suitable for dispensation, a good deal of multiplication is rendered necessary for those who might desire to make use of them.

The publishers' work has been well done, the book forming one of the series known as Wood's Library of Practical Medicine.

QUARANTINE VERSUS DISINFECTION.

The National Board of Health, in its Bulletin of July 12th, issued a circular, from which we quote as follows:

"The Executive Committee of the National Board of Health invites the attention of all state and municipal authorities and sanitary organizations to the fact that they should, without delay, endeavor to secure the best sanitary condition of the places and people under their charge.

"Whatever opinions may be held as to the causes of yellow fever and of the recent appearance of that disease in Tennessee and Mississippi, it is best to act as if it were a disease due to a specific particulate cause which is capable of growth and reproduction, transportable, and may be destroyed by exposure to a temperature above 240° Fahrenheit, or by chemical disinfectants of sufficient strength if brought into immediate contact with it.

"It is also prudent to assume that the growth and reproduction of this cause is connected with the presence of filth, in the sanitary sense of that word, including decaying organic matters and defective ventilation, as well as of high temperature.

"The cases of yellow fever recently observed should be considered as due to causes surviving from last year's epidemic, and not to recent importation from other countries. It follows that there is a liability to the appearance of other cases in places visited by the epidemic of last year, and that there is danger of the spread of the disease to the North and the East.

"In a previous circular this board has advised as to the means which should be adopted, so far as the usual channels of transportation are concerned, to prevent the spread of the disease."

It is to be hoped that the energetic measures taken may be successful in limiting the range of the present epidemic and in averting future ones, although it is not probable that occasional visitations, in a mitigated form, can be avoided by the strictest quarantine combined with the most thorough sanitary regulations which can be enforced. The wisdom which comes from experience will be dearly bought by the unfortunate people of Memphis, whose refugees fare little better than did the lepers of old.

From the writings of many Southern physicians (as was pointed out in a recent number of the JOURNAL [1]), especially since the epidemic of last summer, it is clear, that however foreign to this country yellow fever may once have been, it must now be regarded as sometimes of local origin. Typhoid fever, which it is said was never known in Australia until its introduction by immigrants, is now nearly or quite as prevalent as it is in England. The greater virulence of the yellow-fever poison would tend to give it a firmer foothold, provided that the local conditions are favorable for its reception; and the cases which occurred on the Plymouth, after wintering in a northern latitude, throw new light upon the vitality of the germs.

While the newspapers are full of abuse of the authorities at Memphis for the filthy state of their city, now that the fever has broken out afresh, and there appears to be no escape from the conclusion that its origin was purely local, the rekindling of the flame which has been dormant during the colder months, — it is interesting to look back to the report of the Yellow Fever Commission, at Richmond, last November. Among the preliminary conclusions, we find the following: —

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[1] June 19, 1879.

"1. We have not, in a solitary instance, found a case of yellow fever which we could justifiably consider of *de novo* origin, or indigenous to its locality."

The proposition which declared that yellow fever was a specific disease not indigenous to or originating spontaneously in the United States, was so modified as to apply to the year 1878 only, although the uncertainty with regard to its importation, in that year, through two doubtful cases at New Orleans, was notorious. In short, quarantine was the sole remedy, or nearly so; the prejudices of the South demanded it, and so it must be. As the South was chiefly interested in the matter, and the question of filth as bearing upon the propagation or spread of yellow fever, was not an agreeable one, the matter was thus disposed of, although an additional proposition was finally agreed to, which stated the importance and value of internal sanitary measures in the prevention or modification of epidemic yellow fever, and urged upon state and municipal authorities the great amount of responsibility which rested upon them, on this account, at times when *no disease was prevalent or threatening.* Our able and frequent contributor, Dr. C. F. Folsom, who was then at Richmond, showed at that time and in many previous and subsequent articles the entire disregard of sanitary precautions throughout our towns, and whatever the local boards of health may have done in the mean time, or the National Board with its coercive powers, it does not appear that the favorite delusions with regard to yellow fever have yet been violently assailed.

MEDICAL NOTES.

— There seems to be a disposition in the daily press to undervalue the services of the National Board of Health. Bad jokes are cracked at their expense; enterprising correspondents relate how they have slighted the suggestions of a prominent politician, how extravagant they have been in the use of the funds appropriated, etc. Although the composition of the board is not all that could be desired, as anything generated from a political source must of necessity be in this country, the public should understand that the profession is thoroughly in sympathy with the work they have in hand, and that such men as Drs. Bowditch and Billings, not to mention several others, are men for whom we entertain the highest respect, and that the gallantry of Dr. Mitchell during the present epidemic at Memphis is eliciting warm praise. The organization of a sanitary department for this country, which shall be perfectly effective, will occupy many years, and will prove one of the most instructive problems in the history of sanitary science.

— The American Otological Society met at Newport, R. I., on July 23d. The following officers were elected for the ensuing year: Dr. Albert H. Buck, president; Dr. Charles H. Burnett, vice-president; and Dr. J. J. B. Vermyne, of New Bedford, treasurer, Dr. J. Orne Green having declined reelection. The Ophthalmological Society met the following day at the same place. The attendance was quite large. Dr. H. D. Noyes, of New York, was elected president; Dr. W. F. Norris, of Philadelphia, vice-president; Dr. R. H. Derby, of Boston, secretary and treasurer; and Dr. J. S. Prout, of Brooklyn, corresponding secretary. The American Dermatological Association will hold its third annual meeting in New York on August 26th.

— The exercises held at the complimentary dinner lately given to Professor S. D. Gross have appeared in book form, with a beautiful photograph of the professor as a frontispiece. So well deserved a compliment and successful entertainment needed a memento of this kind, which is prepared in excellent taste by the secretary of the committee, Dr. Mears.

— During Dr. Choate's absence in Europe, Dr. George F. Jelly, lately medical superintendent of the McLean Asylum, is to take charge of the admirable private asylum for the insane at Pleasantville, N. Y.

NEW YORK.

— Since the last report several cases of yellow fever have been discovered in New York and Brooklyn, but in every instance the patient had recently come either from Memphis or Havana. The most remarkable one was that of a young woman who arrived from Havana on the 2d of July, and some time afterward was sent to the Presbyterian Hospital in this city from the Marine Hospital, where she was supposed to be suffering from malarial fever. She was stewardess on the bark Wallace, which sailed from the above port on the 19th of June. When the vessel reached the New York quarantine four of the crew were found to be down with yellow fever, and were taken to the hospital on Swinburne Island; after which it was detained at quarantine fourteen days, and disinfected with unusual care, on account of its bad condition. All this occurred so long ago that it is difficult to account for the appearance of yellow fever now in any one connected with the boat, unless the stewardess who was attacked may have opened some piece of luggage which was not thoroughly disinfected, and thus taken it. This patient was admitted to the Presbyterian Hospital on the 26th of July, and died on the 29th; and it was not suspected that she had yellow fever until just before her death, when she became somewhat jaundiced, although there was no black vomit. At the autopsy, however (which was made in the presence of Dr. Day, sanitary superintendent, and Professor Janeway, one of the health commissioners), unmistakable evidences of the presence of the disease were discovered. When this was found to be the case, Health Officer Vanderpoel was notified, and he immediately ordered the bark Wallace to return at once to quarantine. Yellow fever seems to be unusually prevalent at Havana this season, and it is announced that no less than one hundred and seventeen deaths from it occurred there during the week ending July 26th.

A party of eleven refugees from Memphis were last week sent to the quarantine hospital by the health authorities, but have now been discharged; the period of incubation having passed, and no symptoms of yellow fever having shown themselves. On their arrival in New York they went to live in a Harlem tenement house, and the attention of the board of health was directed to them by the death of one of their number from yellow fever. Some of the others appeared to be unwell, and all were therefore sent to Swinburne Island. Quarantine Commissioner Oakley, who has just made an inspection of the hospital at this point, praises very highly the conduct of one of the nurses, who has always been distinguished for his faithful services, and who now refuses to give up his position there until after the yellow fever season is over, notwithstanding the fact that a relation in England has just bequeathed him twenty thousand dollars. Mr. Oakley reports that everything at the hospital is in excellent condition, and that there are, at present, only three yellow fever patients remaining there.

In Brooklyn, where two or three cases of imported yellow fever have occurred, extraordinary precautions are being taken to detect such in the future at the earliest possible moment. The superintendent of police, acting under the supervision of the sanitary superintendent, has instructed the police captains to discover, if possible, all persons who might arrive from Memphis or any infected district in the South, and in the event of such persons being found to report their names and residences immediately to the board of health; while the proprietors of hotels and boarding-houses and the principals of schools and private institutions have been reminded that under the sanitary code they are obliged to give notice of all cases of contagious disease occurring among their guests or the persons in their charge. In addition, the water front of the city has been divided into three sections, and placed in charge of officers of the sanitary squad, who are to patrol them, and visit every incoming vessel for the purpose of examining her permits and learning if there is any sickness on board.

In view of the unremitting vigilance of Dr. Vanderpoel and his staff at quarantine, this latter measure would seem to be a work of supererogation; but, as the president of the New York Board of Health lately remarked in a conversation with the postmaster, "the public will waste money and give the board of health anything it wants if only one case of yellow fever is reported at quarantine; but during the remainder of the year it allows more formidable diseases to prevail, and does not attempt to prevent them. If the people of New York," he continued, "were as fully alive to the importance of scarlet fever, as a source of mortality, and would give the board assistance to fight it properly, it would in a few years be almost unknown." He then ventured the statement that more deaths resulted from scarlatina in the State of New York last year than from yellow fever in the South. Health Commissioners Chandler and Janeway have had an interview with Postmaster James in regard to the advisability of fumigating letters received from districts infected with yellow fever after their arrival in this city, and they both stated that they agreed with Dr. Vanderpoel in the opinion that there was no necessity whatever for this, the place where the mails should undergo fumigation being the quarantine boundary of the infected district.

— A short time since the health commissioners held a special meeting to consider the new tenement house act, which last month received the approval of the governor. In the city there are twenty-five thousand tenement houses, and as it has been established that two thirds of the infant mortality is in these buildings it was decided to make a survey of all of them, in order to ascertain how far they can be altered so as to bring them up to the requirements of the new act without unnecessary expense to the owners. The board of appointment has appropriated a considerable sum for the purpose, and now a corps of thirty-two inspectors, composed of physicians, architects, and engineers, has been appointed to make the examination and suggest means of conforming existing tenements to the law. The board of health has also applied to the police commissioners for a detail of thirty men of experience to carry out its provisions. There has been a marked improvement in the character of the houses erected lately, and owners, builders, and architects are bringing in their plans daily to see if they are in accordance with the requirements of the law and meet the approval of the board of health. One of the most important features of the new law is the provision restricting the building to sixty-five per cent. of the area of the lot. The law, however, gives the board the discretion in cases where special provision is made for light and ventilation, to allow the building to cover a larger proportion of the ground than this; but in all cases a space of ten feet must be left in the rear of every lot, and, besides, every room which is to be occupied is to have one or more windows opening into the outside air.

CHICAGO.

— Prof. W. H. Byford left on the 24th of July for Cork, to deliver an address before the annual meeting of the British Medical Association, soon to take place there. He goes by official invitation. It is understood that his subject will be Fibroid Tumors of the Uterus, with which he is, perhaps, more familiar than any other American physician.

— The city is being inspected by a number of volunteer physicians, acting under orders of the commissioner of health, who are carefully examining the condition of all tenement houses. So far the results have shown a better hygienic standard than most of us had expected; indeed, better than is the rule with such houses in most large cities.

LETTER FROM ST. LOUIS.

Sunstroke. — Yellow Fever.

Mr. Editor, — With the return of the summer months and their intense heat, there has been considerable anxiety lest old Sol should renew his onslaught upon us, and the scenes of last year should be repeated. The thermometer has been ranging higher than it did a year ago, though for the last three days the temperature has been very pleasant. With the heat there were refreshing breezes, which undoubtedly saved many lives. Thus far, July 20th, there have been only nine deaths from solar heat; last year, from July 10th (before which time there seem to have been none) to the date corresponding with the present, one hundred and fifty-four deaths occurred; after that time there were fifteen additional fatal cases. In anticipation of another visitation, a large hall at the City Dispensary has been prepared for the treatment of such cases as may be brought there without waiting to transfer them to the City Hospital. The treatment is based on the theory that the condition is due to an elevation of the temperature of the body, and that many of the symptoms are due to the effects of heat upon the nervous centres. The rational treatment accordingly is to reduce the temperature as soon as possible. Unfortunately, there were no thermometric observations of temperature taken at the dispensary, but to the hand there was a very decided increase in the bodily heat. At the hospital the thermometer was used, but by the time the patients reached there they had generally been under treatment for some hours, and the records of temperature and pulse do not seem to have been preserved.

The line of treatment is as follows: As soon as the patient is received his shirt, shoes, and stockings are removed, his trousers rolled up or taken off, and he is placed on a woven-wire mattress with nothing over it, so that the air has free access from below as well as above. The beds are placed where there is a draught. Ice-bags are applied to the head, and ice or ice-water to the extremities, care being taken not to allow the cold application to come in contact with the abdomen. In one case seen by your correspondent, I think in several, upon the second day there was marked abdominal tenderness and tympanites, simulating peritonitis. If under the cooling treatment symptoms of depression or exhaustion manifest themselves, stimulants are administered, — ammonia, ether, whisky, and hypodermic injections of atropia sulphate. This method of treatment seems to be the most successful as well as the most rational.

The poor of course suffer intensely with the heat, and it is thought by some that the large mortality among children is due to the lack of free use of ice among those who cannot afford to buy it. Accordingly, there has been an "ice mission," as it is called, started, and contributions of ice and money are being made. The flower mission has charge of the collection of money, etc. Tickets reading "Good for five cents' worth of ice" are furnished to the captains of the police force to distribute to such cases as they may think require them. These tickets are indorsed by the chief of police, and will be redeemed in cash at his office upon presentation. It is possible that the effect of ice-water upon the alimentary canal of children may be injurious rather than beneficial, especially as the great mortality among children is chiefly due to cholera infantum.

At present the yellow fever seems to be staring us in the face. In view of last year's experience in this city and the number of negroes that the "exodus" is constantly bringing among us from the South, there is some uneasiness. Yesterday our board of health met and established quarantine against Memphis. No freight from Memphis will be received in St. Louis. Passengers coming from there will be inspected before they reach the city, and any suspected of having yellow fever will be detained at Quarantine Hospital, ten miles below. All coming from the South in good health will be gladly received.

Drs. T. F. Outley and F. R. Eversole are to be stationed at quarantine. Dr. Outley served there last year, and has had some experience in treating the disease. It is also the health commissioners' intention to appoint two of our best practitioners as consulting physicians. The rules and regulations of the National Board of Health were approved and indorsed by the St. Louis board, and will be enforced wherever practicable.

MEDICO-LEGAL NOTE.

DELAYED SHOCK.

The recent "whipping case" at Malden has excited considerable local interest, and is also worthy of notice from a medico-legal point of view. The deceased, William Bagley, was twelve years old. Although he had had a white swelling of the knee in his infancy, leaving the joint bent and anchylosed, necessitating the use of a crutch, he was a "remarkably healthy and active boy." On the 20th March he received punishment at school, consisting of five or six slaps on each hand with a rattan in the usual manner, the only marks of which were a slight cut on the thumb and a swelling on the forefinger. The boy made no complaint of illness until four days subsequently, when he begged to be excused from going to school on account of a pain in his stomach. The doctor who was called in the evening, a few hours before his death, found him almost pulseless and unconscious. He had been growing steadily worse during the day, the parents appearing to be unable to give a clear account of his condition.

There seems to have been no suspicion at the time of his death of criminal violence, but the attention of the Society for the Prevention of Cruelty to Children was afterwards called to the case, and their agent, Dr. Dixwell, insisted upon an autopsy, which was performed twenty-four days after death. Decomposition had set in, but had evidently been delayed, owing to the coldness of the ground. Nothing unhealthy was found, except a possible ulceration of the tonsils, "marked absence of blood clots," and the anchylosed knee. Dr. Dixwell, the agent of the society, testified at the inquest that the symptoms were exactly those of nervous shock, of which, in his opinion, the boy died. The testimony of the other physicians went to show that "delayed nervous shock" is not a recognized pathological condition, but that, as Dr. Cutler expressed it, "the boy died of some undeveloped disease, that is, some disease whose symptoms were not sufficiently distinctive." A verdict was rendered in accord with the latter view, and that the punishment was not unusual, excessive, or cruel. This case is somewhat analogous to the Charlestown poisoning case, where rumor was busy in assigning causes for death which were without foundation. In the present instance, although the medical examiner, Dr. Sullivan, thought no inquest necessary, the reports subsequently circulated seriously inculpated the teacher, and beside giving rise to a great deal of ill feeling placed the Society for Prevention of Cruelty to Children in the attitude of bringing a grave charge, based on a theory which could not be sustained, against an innocent person. This is much to be regretted, as the society is doing an excellent work, and should enjoy the sympathy and confidence of all classes in the community.

* * *

SHORT COMMUNICATIONS.

WOMEN AT ZURICH.

We have received the following copy of a letter from Zurich, sent us by Dr. H. I. Bowditch: —

"I cannot imagine where you hear such remarkable stories about Zurich, when there is really not the shadow of a foundation for them. Let me say, then, once more, Zurich is now, and, for all anybody can see, always will be, open to women. So far the experiment has worked well. The women have steadily gained ground, and the opposition has steadily diminished. Even the students are not so bitterly opposed to us as formerly, and many of them treat us as their equals. This term Professor Hermann has a woman assistant, and I am with Professor Rose. The latter was bitterly opposed to us at first, but has been completely won over to our side. To prove this I will relate a little incident:—

"I had very much wanted this place, and in order to get it applied a year in advance. Toward the close of last term a student came to me, and said he very much wanted the place with Professer Rose, and the professor said he might ask me if I could wait one term longer. I went to see the professor, and told him I wanted the place very much, and must have it now or never, but if he preferred the student to me I would withdraw. He replied, "No;" I had applied first, and therefore had the best right, and he would never allow a woman to say again that she had not just as good a chance with him as a man. A little while afterwards I heard the student was very angry, and proposed to make it unpleasant for me. In order to avoid any trouble, I went again to the professor, and told him it seemed best after all for me to withdraw. He insisted upon knowing my reason, and then told me to leave that to him; he would see whether any one would dare to interfere with me. I took his advice, and the result has been most satisfactory."

INSOMNIOR.

We hope the Railroad Commissioners will make further attempts to prevent unnecessary whistling on the different lines entering the city. In addition to the observations we have made from time to time regarding the bearings of this nuisance on the public health and comfort, we are pained this week to have to publish the following lines, which evidence the wreck of a once fine mind, — the result of insomnia induced by the diabolical whistle: —

The shades of night were fading fast,
When through the sleeping suburbs passed
A train with screech and howl and bell,
And 'scaping steam and fourfold yell, —
Toot, toot: tut, tut!

The engineer was tired and mad,
Thought others' sleeping was too bad;
So like a devil's fierce despair
Rang the wild roar on the night air,
Tooot, tooot: toot, toot!

In happy homes he saw wide ope
The chamber window, in the hope
Cool airs might lull to welcome dream;
Right in the casement dins the scream,
Toooot, toooot: toot, toot!

"Cuss that ingīne!" said Deacon Beal;
"Bad 'cess to yez!" cried Father Niel;
Prayed Dr. Graves, just gone to bed,
"I wish that engineer were dead!"
Tooooot, tooooot: toot, toot!

"Oh, dear," the maiden cried, "no rest
For the dread cough that racks my breast;
I thought sweet sleep was drawing nigh."
Instead, the cars shriek clattering by,
Toooooot, toooooot: toot, toot!

"Beware the tie athwart the track;
Beware the switch misplaced a crack," —
This was the tramp's last grim good-night.
The whistle bellowed in affright
Tooooooot, tooooooot: toot, toot!

The mother's last convulsion o'er,
Hope beamed upon the house once more.
To death's black door she turned again,
When startled by the whooping train,
Toooooooot, toooooooot: toot, toot!

And in the twilight cold and gray,
The depot reached, the driver 'll say,
"I 've waked and scared more folks to-night
Than half a year will e'er put right."
Tooooooooot, tooooooooot: toot, toot!

DIFFICULT LABOR.

Mr. Editor, — I have recently met with a peculiar case in obstetrics. Mrs. W., primipara, aged twenty, was taken with symptoms ushering in parturition Friday morning, 25th inst. Occasional pains during the day, but down-stairs. Saturday morning. Still lingering pains. She was ordered ol. ricin. f℥ij. In the afternoon I was summoned, and found the os dilated to the size of a quarter dollar, and the edges unyielding. There had been no amniotic fluid. The labor grew more severe, and ether was freely used. The first stage was completed at midnight; still the head did not descend within reach of forceps. Vagina narrow. I was sure that the delay was due to the size of the fœtal head, as compared with the diameters of the superior strait. The head finally engaged about five A. M., Sunday, and she gave birth to a male infant (nine pounds), no liquor amnii following. The head was not so much disfigured as I have witnessed before, yet the compression was serious, and the infant to-day has slight convulsions. He is ordered bromide of potassium in three-grain doses every hour, and is more quiet. I have not much hope that he will live. The rarity of cases without any amniotic fluid is, I think, worthy of note. I have never met with one during twenty six years' practice. I feared a case of locked head for some time. The patient would not consent to the use of the forceps. Mother doing well.

Everett, *July* 28*th*.
I. F. Wakefield.

HOG CHOLERA.

MR. EDITOR, — The following are the ingredients used in Dr. Joe Haas's hog cholera remedy, which is used extensively in the West for arresting disease so prevalent among swine: —

Ashes	20 parts.
Lime	20 parts.
Salt	1 part.
Soda	2 parts.
Bayberry	2 parts.
Capsicum	2 parts.
Arsenic	1 part.
Calomel	1 part.
Spanish brand	6 parts.
Flour	3 parts.
Tonca bean	1 part.

This remedy has proved very efficient, and I place it at your disposal, believing that it will prove of interest to many of your readers. It should be given as follows: one even tablespoonful twice a day for each hog when sick. When used as a preventive: one tablespoonful for each three hogs once or twice a week. Respectfully yours, A. W. B.

INDIANAPOLIS, IND.

REPORTED MORTALITY FOR THE WEEK ENDING JULY 26, 1879.

Cities.	Population estimated for July, 1879.	Reported Deaths in each.	Annual Death-Rate per 1000 during the Week.	Percentage of total Deaths from				
				The Principal "Zymotic" Diseases.	Diarrhœal Diseases.	Scarlet Fever.	Pneumonia.	Diphtheria and Croup.
New York	1,085,000	600	28.83	41.50	29.83	3.67	3.50	2.00
Philadelphia	—	—	—	—	—	—	—	—
Brooklyn	564,400	255	23.56	45.49	36.86	2.74	1.96	3.53
Chicago	—	215	—	45.12	33.49	3.26	2.79	3.26
St. Louis	—	173	—	42.20	32.95	0.57	2.31	0.57
Baltimore	365,000	154	22.00	36.36	25.32	3.25	3.25	1.95
Boston	350,000	152	22.65	40.13	33.55	0.66	5.92	1.96
Cincinnati	280,000	—	—	—	—	—	—	—
New Orleans	210,000	103	25.50	25.34	12.67	—	2.90	0.96
District of Columbia	160,000	104	33.89	28.85	21.15	—	0.96	0.96
Cleveland	—	101	—	49.51	45.54	1.98	0.99	—
Pittsburgh	—	71	—	54.93	33.80	11.27	5.63	5.63
Buffalo	—	—	—	—	—	—	—	—
Milwaukee	—	52	—	38.46	28.85	—	1.92	5.76
Providence	101,500	45	23.12	42.22	24.44	4.44	—	6.67
New Haven	60,000	21	18.25	14.29	9.52	—	4.80	—
Charleston	57,000	42	36.67	21.43	14.28	—	2.38	2.38
Nashville	27,000	20	38.62	15.00	10.00	—	—	—
Lowell	53,300	28	27.38	39.29	35.71	—	—	—
Worcester	52,500	27	26.81	14.81	11.11	—	—	—
Cambridge	50 000	18	18.77	50.00	44.44	—	—	—
Fall River	48,500	35	37.63	71.43	60.00	11.43	—	—
Lawrence	38,200	24	32.76	62.50	54.17	—	—	4.17
Lynn	34,000	15	23.01	26.67	20.00	—	—	6.67
Springfield	31,500	12	19.86	25.00	16.67	—	—	—
New Bedford	27,000	11	21.24	45.45	45.45	—	—	—
Salem	26,400	8	15.80	12.50	—	12.50	—	—
Somerville	23,350	6	13.40	50.00	16.67	16.67	—	—
Chelsea	20,800	6	15.04	16.67	16.67	—	—	—
Taunton	20,200	10	25.81	10.00	10.00	—	—	—
Holyoke	18,200	12	34.38	33.33	8.33	16.67	8.33	—
Gloucester	17,100	9	27.44	22.22	11.11	—	—	11.11
Newton	17,100	—	—	—	—	—	—	—
Haverhill	15,300	8	27.26	37.50	25.00	—	—	12.50
Newburyport	13,500	6	23.17	—	—	—	—	—
Fitchburg	12,500	3	12.51	33.33	—	—	33.33	—

Two thousand three hundred and and fifty-six deaths were reported against 2895 for the previous week: 941 from the principal "zymotic" diseases, 685 from diarrhœal diseases, 239 from consumption, 64 from pneumonia, 70 from scarlet fever, 59 from diphtheria and croup, 38 from malarial fevers, 24 from whooping-cough, 22 from typhoid fever, 19 from bronchitis, 17 from measles, 11 from cerebro-spinal meningitis, nine from erysipelas, seven from trismus nascentium, seven from pleurisy, two from yellow fever, small-pox none. From *malarial fevers*, 11 deaths were reported in New York, nine in St. Louis and New Orleans, three in Baltimore and District of Columbia, one in Chicago, New Haven, and Charleston. From *whooping-cough*, nine in New York, five in Brooklyn, two in Baltimore and District of Columbia, one in Chicago, Boston, New Orleans, Cleveland, Pittsburgh, and Milwaukee. From *typhoid fever*, three in St. Louis and Providence, two in Brooklyn, Chicago, and Baltimore, one in New York, New Orleans, District of Columbia, Milwaukee, Nashville, Worcester, Cambridge, Lawrence, and Fitchburg. From *measles*, nine in New York, three in Chicago, one in Brooklyn, Baltimore, Cleveland, Pittsburgh, and Charleston. From *cerebro-spinal meningitis*, three in Chicago, two in New York, one in St. Louis, Baltimore, Pittsburgh, Springfield, Somerville, and Holyoke. From *erysipelas*, four in Boston, one in Chicago, St. Louis, New Orleans, and District of Columbia. From *trismus nascentium*, three in New Orleans and Charleston, one in District of Columbia. From *yellow fever*, one in New York (refugee) and one in Brooklyn (imported). The death-rate in District of Columbia was for whites 25.1; colored 50.08. One death from sunstroke was reported in Baltimore.

The noteworthy changes for the week are a great decrease in the total mortality; also from consumption, the principal "zymotic" diseases, bronchitis, and diarrhœal diseases. In eighteen of the nineteen cities of Massachusetts, with an estimated population of 841,950, there was a marked increase in diarrhœa, and less so of consumption; diphtheria and scarlet fever had diminished.

The weather for the week was cooler, in many places with heavy rains. The mean temperature in New Orleans was 81.4°, Brooklyn 74.45°; range 10.3° and 26.5°; rainfall 1.29 and 1.51 inches. The meteorological record for the week in Boston was as follows: —

Date.	Barometer.	Thermometer.			Relative Humidity.				Direction of Wind.			Velocity of Wind.			State of Weather.[1]			Rainfall.	
	Mean.	Mean.	Maximum.	Minimum.	7 A. M.	2 P. M.	9 P. M.	Mean.	7 A. M.	2 P. M.	9 P. M.	7 A. M.	2 P. M.	9 P. M.	7 A. M.	2 P. M.	9 P. M.	Duration.	Amount in Inches.
July 20	30.272	65	77	54	80	40	72	64	W	S	SW	8	12	11	C	F	C	—	—
" 21	30.180	68	77	58	78	49	79	69	SW	S	SW	10	16	11	C	F	F	—	—
" 22	29.970	73	84	62	89	54	80	74	SW	SW	S	12	10	6	F	F	O	—	.02
" 23	29.751	72	75	66	92	81	95	89	SW	SW	SW	6	12	10	O	O	F	—	.32
" 24	29.963	69	74	66	69	63	63	65	NW	E	N	9	10	1	C	F	F	—	—
" 25	30.117	63	71	59	50	68	94	71	N	E	E	6	10	6	F	C	O	—	—
" 26	29.947	60	65	58	88	100	100	96	E	NE	E	10	13	7	O	R	R	—	.74
Week.	30.029	58	84	54				75	SW			1547 miles.						20.3	1.08

[1] O., cloudy; C., clear; F., fair; G., fog; H., hazy; S., smoky; R., rain; T., threatening.

During the week ending August 2d there were 28 deaths (from all causes 44) from yellow fever in Memphis, and 80 reported cases, against 85 cases and 37 deaths of the previous week. The population has been reduced to one third its usual number, of whom less than one half are susceptible to the disease. Camps out of the city, of eight thousand capacity, have been formed for those who cannot leave it. Another refugee has died in New York and Louisville, and one in St. Louis; also a case (possibly imported) in New Orleans. There was one case (refugee) in Cincinnati, and five were under observation in New Orleans, reported to be yellow fever. Very stringent quarantine regulations have been adopted against Memphis and New Orleans, in the former city amounting to almost absolute non-intercourse. The sanitary work done in both cities is admirable, and hopes are entertained that a general epidemic may still be prevented.

For the week ending July 5th, in 149 German cities and towns, with an estimated population of 7,432,536, the death-rate was 28.1 (previous week 28.2), with a marked increase in measles and diarrhœal diseases, and diminished fatality from consumption and pulmonary diseases. Four thousand and eleven deaths were reported: 852 from diarrhœal diseases, 474 from consumption, 166 from acute diseases of the respiratory organs, 91 from diphtheria and croup, 54 from measles, 44 from whooping-cough, 44 from typhoid fever, 43 from scarlet fever, 17 from puerperal fever, three from typhus fever, none from small-pox. The death-rates ranged from 9.4 in Erfurt to 59.1 in Berlin; Königsberg 38.2; Dantzic 30.1; Breslau 28.5; Munich 36.9; Stuttgart 27.5; Dresden 26.8; Nuremberg 22.8; Leipsic 17.5; Hamburg 22.1; Hanover 18.9; Bremen 25.9; Cologne 22.6; Frankfort-on-the-Main 19.0; Strassburg 30.8; Darmstadt 24.1. Also for the same week, Vienna 25.9; Prague 36.4.

For the week ending July 12th, in the 20 English cities having an estimated population of 7,383,999, the death-rate was 17.6, a decrease of 0.3 from the previous week, showing an increase in diarrhœal diseases, whooping-cough, and measles. Fewer deaths were reported from small-pox than in any other week since last December. Two thousand four hundred and ninety-two deaths were reported: 180 from diseases of the respiratory organs, 92 from measles, 91 from scarlet fever, 88 from whooping-cough, 54 from diarrhœal diseases, 31 from fever, 13 from diphtheria, and four from small-pox (in London). The death-rates ranged from 13.1 in Oldham to 21.4 in Bristol and Hull; London 17.0; Brighton 13.3; Birmingham 16.9; Liverpool 18.6; Manchester 20.2; Leeds 15.9. For Edinburgh 18, Glasgow 22, Dublin 22 (small-pox eight deaths). In the same week, Geneva 19.2; Zurich 21.3; Basle 21.7; Lucerne 29.7

* * *

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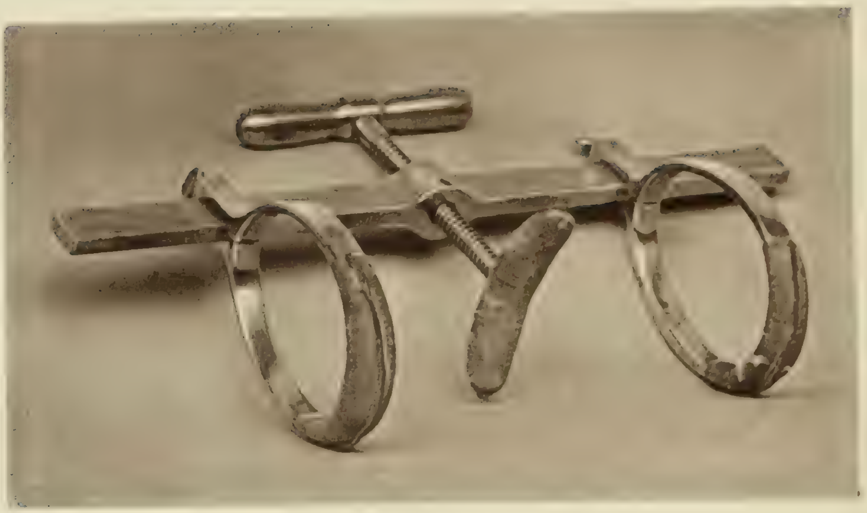

FIG. 1

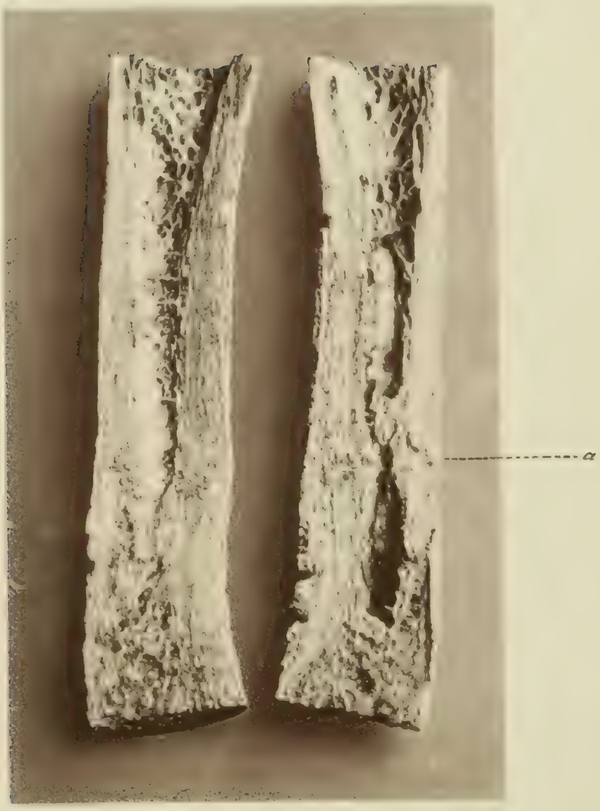

FIG. 2

THE BOSTON
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CASES OF OSTEOCLASIS.

BY A. T. CABOT, A. M., M. D.

In Vienna, in the winter of 1876, I saw for the first time the osteoclast of Rizzoli in use, and was astonished to see with how little injury to the soft parts strong bones could be fractured with it. This instrument was devised by an Italian surgeon, Rizzoli, and used by him, in 1847, to fracture the femur of a young girl in whom one leg was considerably shorter than the other, his object being to cause the ends of the fragments to lap, and so to shorten the leg operated on to match the other. Previous to this time bones had frequently been refractured for badly united fractures, but this is the first case on record in which a previously unbroken bone was deliberately fractured for orthopædic purposes. Since then the instrument has been frequently used by Continental surgeons for the cure of deformities.

The cases which follow were operated upon with an instrument (Figure 1) made as nearly as possible after the one I saw in Vienna. The mechanism is so simple as to be understood at a glance. The limb is held in the rings, which may be adjusted at any required point on the cross-bar, and the pressure is then brought to bear with the crutch upon the point where the fracture is to be made. In practice the fracture does occur almost exactly at the point where the pressure is made, even if the rings holding the bone are at unequal distances from this point. It was found best in applying the instrument to the lower leg to bring the pressure to bear on the outside, where the bones are well padded with muscles. In this way, too, you have the advantage of attacking the tibia in its narrower and consequently weaker diameter. When it can be avoided, the counter-pressure with the rings should not bear upon the epiphyses of young bones.

Case I. A scrofulous-looking girl of four years had very great bowing of the lower legs outwards and forwards. The femora were quite straight. She walked insecurely, and with considerable rolling in her gait.

August 31, 1878, Dr. S. Cabot operated, with the assistance of Drs. Bradford, Post, and myself. The child was etherized, and both legs were fractured with the osteoclast, straightened, and put into plaster bandages. After recovering from the ether she was annoyed rather by the confinement of the bandages than by any real pain. There was no apparent swelling, and after the first day the child's appetite was as good as before the operation. At the end of three weeks the bandages were removed, and the union seemed firm, though no callus could be felt. Two days later, a slight tendency to bend at the point of fracture manifested itself, and side splints were applied. These were kept on for about five weeks more. The child now played about the room, and walked with tolerable ease if held by the hand. The legs were perfectly straight. She soon began, however, to be peevish; had a slight cough, and very little appetite.

November 20th. Cerebral symptoms appeared; slow pulse, inequality of pupils, headache, *taches cérébrales*, and, a day or two later, several slight convulsions. She died November 29th, just three months after the operation.

The autopsy revealed a general miliary tuberculosis, affecting especially the membranes of the brain and the lungs. Two old cheesy masses of tubercles on the cerebellum were probably of several months' standing. The left tibia was removed. Figure 2 gives a longitudinal section of this bone. At *a* an imperfectly marked transverse line indicates the point of fracture, and the medullary cavity is somewhat narrowed at this point, though by no means obliterated. A thin layer of spongy bone envelops the tibia, extending for one to one and a half inches above and below the fracture.

The next two cases occurred in the practice of Dr. C. B. Porter, who kindly consented to report them in this series.

CASE II. Eva D., colored, aged five years. Parents healthy, as also her brothers and sisters. Soon after she began to try to walk it was noticed that both tibiæ bowed forwards. The humeri also bent outwards. No measures were taken to arrest or correct the deformity, which gradually increased, until the bones became strong and fixed in their deformed position.

October 16, 1878, she entered the Massachusetts General Hospital. The tibiæ were bowed very acutely forward, the bend in each leg being a little below the middle of the bone. The child walked with a slow, shuffling gait, turning the toes far out, and rolling from side to side at each step. The heels were very prominent and the feet flat.

October 19th. Dr. Porter performed the operation for osteotomy on the left leg under carbolic spray, and with all antiseptic precautions. At the point of greatest angle an incision three inches long was made over the crest of the tibia. A crucial incision was made in the periosteum, and the flaps were reflected. A V-shaped piece of bone, including about two thirds the thickness of the shaft, was then sawn from the tibia, and the leg straightened. The fibula, fractured in straightening the leg, and the ends of the tibia were then wired together. A Lister dressing was applied, and the leg laid on a ham splint. For four days there was some pain, but after that the child was perfectly comfortable.

October 27th (eight days after preceding operation). The child was again etherized, and the right leg was fractured with the osteoclast. The deformity was so great that the tendo-Achillis had to be cut before the leg could be straightened, and even then there was considerable overlapping of the fragments. A plaster-of-Paris bandage was applied while the leg was strongly extended by an assistant.

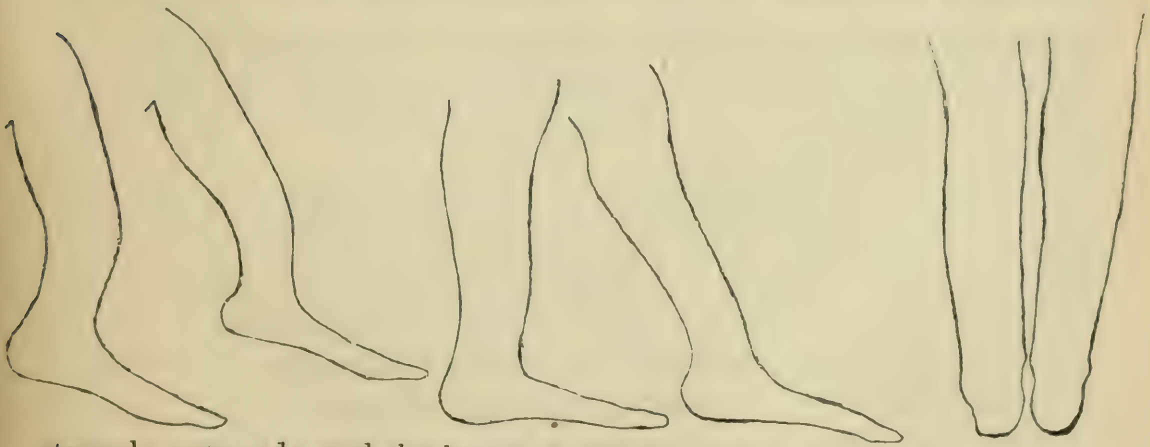
From this operation the child was in pain for one day only. The leg upon which osteotomy had been done was soon after this put in side splints, there being some tendency to lateral displacement.

December 5th. Plaster bandage removed from the right leg. It was found firmly united, with, however, considerable overlapping. A little fragment of bone was movable at the point of fracture, but it soon after became attached and solid.

December 11th (seven weeks and a half from date of operation). The wire was removed from the left leg, which had long been firmly united.

December 17th. She began to walk, and soon did so easily. Late in January, after her legs had been much handled and examined, a small abscess formed over the seat of fracture in the left leg, and two small pieces of bone were discharged, after which it healed quickly, and has given no further trouble.

CASE III. Margaret J., colored, aged ten. In this case the deformity was confined to the lower extremities. The femora were bent strongly outwards, and the bones of the lower legs sharply forwards, at about the junction of the middle and lower thirds. The feet were very large and flat, with very prominent heels. She walked with a shuffling gait, rolling from side to side, and had considerable difficulty in maintaining an erect position.



November 2d. The child was etherized, and both lower legs were

fractured with the osteoclast. Fearing that the bones would not break at the desired place, Dr. Porter, before applying the osteoclast, introduced a fine drill through the puncture of a tenotomy knife, and perforated the tibiæ with two or three holes at the most prominent part. There being difficulty in bringing the legs straight, he cut the tendo-Achillis in each. The punctures were all made with antiseptic precautions. The legs now came down into good position, with no lapping of the ends of the bones, and were put into plaster bandages. For one day and night there was considerable pain, and the temperature rose to 100° F. After that, the child was perfectly easy, and the temperature normal.

November 9th. Plaster bandages were removed. Legs in good position. A superficial small collection of pus, at point where drill was entered in right leg, was evacuated, and gave no further trouble. Plaster bandages reapplied.

December 4th (four weeks and three days from date of operation). Bandages removed. Legs firmly united in good position. A slight ulceration at point where abscess had occurred in right leg.

December 10th (five weeks and three days after operation). Child allowed to walk. For three days she had a good deal of difficulty in so doing, but after that rapidly improved, and left the hospital walking much better than at entrance, though still with a roll, caused by the deformity of the femora, which the parents refused to have corrected. The figures, showing state of legs before and after operation are tracings from photographs.

CASE IV. occurred at the Children's Hospital in the service of Dr. Ingalls. A little girl, aged four years, had both legs much bowed, the curvature being most marked immediately below the tubercle of the tibia, with the convexity directly outwards. The tracing of these legs was unfortunately lost, but the deformity was almost the exact counterpart of that in Case V., though made somewhat more striking by the greater length of the legs.

The child was operated upon by Dr. Ingalls, November 27, 1878. Drs. Bradford, F. H. Davenport, and myself assisted at the operation, and Drs. C. P. Putnam and Whitney were present. The child was etherized, and the legs were broken between the upper and middle thirds, and then put as usual into plaster bandages. Dr. Davenport has kindly furnished me with the subsequent history.

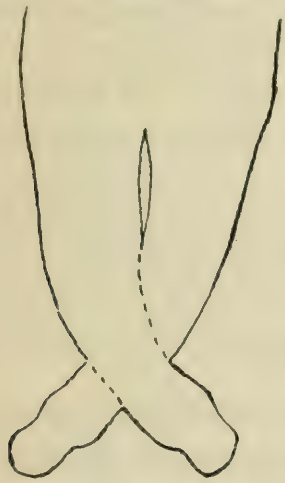
November 29th. The child has seemed perfectly well since recovering from the ether. No rise in temperature followed the operation.

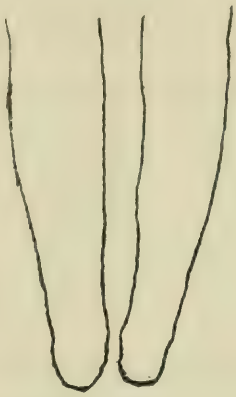
December 26th (four weeks from operation). Plaster bandages removed. Legs in good condition, and straight.

January 2d. The child walks a little, though weakly.

May 9th. I visited the child at its home. She walked well and steadily, though she still toed in somewhat. The mother said she was much stronger on her legs than before the operation, and was greatly pleased with the result. In this and in Case V. the tracings were taken directly from the legs, and reduced with a pantograph.

CASE V. I saw by the kindness of Dr. C. P. Putnam. The patient was a boy of three years. The curvature was mainly in the upper third of the leg, as may be seen in the tracing. Dr. Putnam operated December 21, 1878, with the assistance of Dr. Bradford and myself. The legs were broken at about the junction of the upper and middle thirds. Plaster bandages were immediately applied. The child was cared for at home, and for the subsequent history I rely upon the mother. She thinks the child suffered but little from pain, though, being a fussy boy, he fretted at having the bandages on his legs. Four weeks after operation the bandages were removed by Dr. Putnam, and the legs were found well united, straight, and with the skin in good condition.





Much has been done of late for the correction of deformity by osteotomy; but these cases go far to demonstrate, I think, that in a large proportion of deformities long bones can be better straightened by *simple* fracture without the aid of cutting instruments. The small amount of disturbance of the tissues by this operation is shown by the absence of swelling or callus in any of the cases, and by the most perfect union of the bone in Case I. (Figure 2), where, three months after the operation, the medullary cavity was found unobliterated.

The immediate application of the plaster bandage reduces to the minimum this disturbance of the parts injured. While the operator is applying the plaster bandages, an assistant can hold the toes firmly with one hand, and with the other a loop of soft bandage, passed over the point of fracture. This enables him to hold the parts steadily in good position while the plaster sets.

Cases of extreme deformity, where, after the fracture, the ends of the bone slide a considerable distance past each other, and those in which the deformity is in very close proximity to a joint, may perhaps be best reserved for osteotomy. In all other cases the present operation, I think, not only offers the patient a better chance for a quick and safe recovery, but also gives quite as straight, if not a straighter, limb.

EXCREMENTAL DISEASES: THEIR CAUSATION AND THEIR PREVENTION BY HYGIENIC MEANS.

BY GEORGE E. WARING, JR., NEWPORT, R. I.

The danger always exists that one who writes on a special source of disease, and who studies its various bearings, may overestimate its relative importance and find a universal bane in its action, a universal panacea in its suppression or removal. While the effort will be made to avoid giving this extreme impression, and while this paper is written under a full appreciation of other morbific agencies and of other hygienic processes, regard will be had only to diseases caused by excremental pollution. Their serious character will not be overstated; they will only stand out more prominent and conspicuous because standing alone.

Human excrement is believed to have a twofold ætiological bearing: (1) through its direct action as filth, whose decomposition may produce dangerous results; (2) as a vehicle for the transmission of "specific" contagion or infection.

It is not necessary here to enter into the discussion as to "specific" and "common" ferments; as to the existence or non-existence of "germs" which may act like seeds and produce diseases after their own kind; nor as to the possibility or extent of the *de novo* origin of disease. This discussion is familiar to the profession in each of its departments; it finds adherents on the positive and on the negative sides; and it promises to continue, still, without definite conclusion. Fortunately, the practical bearings of the question are not necessarily affected by these considerations. We have to do with the facts of disease production and with the methods of disease prevention, rather than with the theories by which the facts are to be accounted for, and the ultimate reasons why the methods are effective.

It is hardly worth while to adduce evidence to prove that human excreta are a cause of disease. The most elementary literature of the profession accepts the fact. The reports of the medical inspectors of the English health department in the four years 1870 to 1873 cover investigations as to the causes of certain diseases in one hundred and forty-three different localities. In every instance, without a single exception, — sometimes as "bad drainage," sometimes as "excrement conservancy," and sometimes as "defective sewerage," — these diseases are ascribed to excremental causes. No physician need even be reminded of the direct detrimental influence of an improper treatment of this material. It was recognized in the time of Moses, and it has always been accepted, both by the reason and by the instinct of the whole human race. The point upon which enlightenment is needed (as much, perhaps, among the profession as among laymen) relates to those more intimate bearings of the subject, which are affected by those conditions of health or disease in the body whence the excrement proceeds, and by the modifying effect of certain methods of removal and final disposal.

Dr. John Simon (than whom no one is better qualified to form an opinion on the subject) believes that uncleanliness is to be reckoned "as the deadliest of our present removable causes of disease." Removable it certainly is, and the degree to which, not being removed, it may act as a producer of disease is fairly appalling to consider. Human excrement exerts its baleful influence on human life with every degree of intensity, according as it arises from absolute filth or comes with the modified, imperceptible, and unsuspected escape of gases through minor defects of our most trusted methods of house drainage. It may disgust us and drive us away by its intolerable stench, or it may come to us quite unannounced, dissolved in the clearest and most sparkling spring water, or suspended in the familiar atmosphere of our houses.

In rare instances, the intense stinking of accumulations of unventilated excrement produces death or disease by the direct action of their sulphureted hydrogen. This action is too unusual to claim attention here. Foul odors arising from excremental decomposition are a warning to our senses, — perhaps nothing more. The morbific influence, when it exists, may accompany these odors, but it is not of them, and it may come without them. It is quite certain that it may exist even in deadly quantity without the presence of associated gases which chemistry can detect. It often invades our houses accompanied by a smell so slight as to be undetected by those whose deadened senses have been trained to withstand a feebly tainted air. The poison may exist in water of obvious foulness, and it may equally exist in water which to the eye and to the taste seems pure and wholesome.

Before we can devise rational hygienic means of prevention, we must understand, so far as the present state of our knowledge permits, the method of its action. Here we come to the realm of pure hypothesis; but it is a hypothesis which is sustained by all the facts of causation and prevention as we know them. Long and careful observation as to the relations between uncleanliness and disease, between cleanliness and the prevention of disease, show that, although we may have mistaken the hidden means of action, we have brought causation and cause into logical and reliable relation with each other. The best accepted belief is this: —

(1.) Diseases of a diarrhœal character, whether seated in the intestinal canal alone, or involving the intestinal canal in its direct or indirect complications, are attended with the secretion or discharge of infecting material which escapes through the bowels, and gives to the excreta the power of communicating the disease to other bodies with which it or its effluvia may come in contact.

(2.) The excrement of healthy persons may, under certain unfavorable circumstances, exert such unhealthful influence upon susceptible bodies as to produce diseases which, once established in the living human being, become directly communicable.

(3.) Whether or not human excrement is to act as a vehicle for the transmission of disease, or as the original source of disease, depends, to a great degree, upon the conditions under which it is accumulated or under which its removal is effected. It is believed that, however pernicious it may be capable of becoming, it is possible so to control its conservation and disposal as to make it powerless to do harm.

This general statement of accepted theories of the subject will serve as a basis for what is herein set forth.

The diseases which may be considered as especially caused and transmitted by excrement are: all forms of epidemic diarrhœa, dysentery, typhoid fever, cholera, and, in general, all diseases in which the intestinal canal is subject to specific change, as scarlatina when it affects the bowels. The degree to which excremental causes, as distinguished from those arising from the decomposition of other organic wastes, are to be regarded as an originating source of diphtheria is by no means well established. Numberless cases — like that of the Murray family at Newport, where an accumulation of excrement from a leaking water-closet (under the house floor), coincided with an outbreak of this disease, in which seven members of a family of eight had the disease in well-marked form, six of them dying within two weeks — point strongly to direct causation; but it is not certain that all of these cases might not be sufficiently explained by reference to organic decomposition, the decomposing matters being other than excremental. That excrement may operate in connection with this disease, at least as hurtfully as other decaying substances, is unquestionable; but it would be prudent, for the present, to exclude diphtheria from the list under consideration. A general belief that all entero-zymotic diseases find their chief agency of extension in excremental contagia, has resulted from the evidence which has accumulated since the careful and conclusive investigations of Dr. John Snow concerning the spread of cholera in London through unmistakable excremental communication.

While it is not wise to carry positive statements too far, it is proper to refer in this connection to the conspicuous place that seems to be held by human excreta among those elements of filth whose decomposition under unfavorable conditions appears to give origin, and is known to give extension to other diseases than those mentioned above, — diseases which prevail with especial fatality where the conditions of existence are the most unwholesome. Whether by direct septic action, or by the indirect enfeebling of the system and lessening the power of resistance, the tainting of the atmosphere by such decompotion leads to, or greatly favors, such infections as erysipelas, septicæmia, pyæmia, and puerperal fever. On this subject Dr. John Simon says, "The pathological studies of late years, including, eminently, certain very instructive researches which Professor Sanderson has conducted, have clearly shown that in the 'common' septic ferment, or in some ferment or ferments not hitherto to be separated from it, there reside powers of disease production as positive, though not hitherto as exactly defined, as those which reside in the variolous and syphilitic contagia. Experimentally we know of this ferment that when it is enabled by artificial inoculations to act in its most effective way on the animal body, and, even more, when it has received a curious increment of strength which its first propagation within the living body seems to bestow on it, it shows itself one of the most tremendous of zymotic poisons. It rapidly in the one animal body develops disease, which then is communicable to another: febrile disease with inflammations numerous and intense, and including in marked degree one of the acutest known forms of intestinal inflammation and flux; . . . . infections which we sometimes see locally arising anew in unquestionable dependence on filth, but of some of which, when arisen, it is perfectly well known that they are among the most communicable of diseases." He further shows that this ferment, in its milder action, may lead to the development of tuberculous disease. The natural accession of this ferment through the breathing of fouled air, or the drinking of fouled water, may act only by a slow undermining of the constitutional power of resistance, but its frequent accompaniment or result is a development of phthisis or other tuberculous disease, or of the more marked forms of intestinal disease. "The mischief first done is of a sort which entails certain possibilities of extension: such, namely, that in the one instance by accidental contagion, as in the other instance by hereditary transmission, it may, for aught we know, indefinitely extend beyond the sphere in which filth first produced it."

Among diseases of excremental origin, enteric fever may be regarded as the most conspicuous and the most decidedly typical. So far as we know, the conditions under which excrement causes or communicates this disease are precisely the conditions which favor its deleterious action with regard to the others of its class.

No one else has stated more tersely and truly the scandalous relation in which civilized communities stand to these ever-present and deplorable scourges than that same master of vigorous English, the recent medical officer of the privy council of Great Britain, who says: —

"I would say that it is difficult to conceive, in regard to any causation of disease in a civilized community, any physical picture more loathsome than that which is here suggested; that apparently, of all the diseases which are attributable to filth, this, as an administrative scandal, may be proclaimed as the very type and quintessence; that, though sometimes by covert processes, ... yet far oftener in the most glaring way, it apparently has an invariable source in that which of filth is the filthiest; that apparently its infection runs its course, as with successive inoculations, from man to man by instrumentality of the molecules of excrement which man's filthiness lets mingle in his air and food and drink."

It is surely not necessary to recite here the long catalogue of conspicuous cases, known to the whole profession, which have for years past done duty as unquestioned evidence, to show the close connection between all epidemics of cholera, diarrhœa, dysentery, and enteric fever, and an obvious and unmistakable excremental pollution of air or water, or both. Original cases often arise where excremental causation cannot be proven; occasionally, where the cause seems clearly to have arisen from the decomposition of vegetable matter, kitchen waste, etc. Well-attested facts might easily be collected to fill a volume. In the mortuary report of the city of New Haven in October last, Dr. Lindsay states that the deaths from zymotics were "due to local unsanitary conditions; in every instance investigated he found unventilated privy vaults and cess-pools, often connected by untrapped pipes with living-rooms or sleeping-rooms, and this was very markedly true in the houses where the first cases appeared." "Almost all of these deaths might have been prevented by the known laws of hygiene. Indeed, Dr. Snow, of Providence, states that the cause of nearly all cases that occur in the city is breathing impure air from privy vaults or sink drains, or cess-pools, or drinking impure water, — whether in the tenements of the poor or in the mansions of the rich." It would be safe to say that, among the thousands of sanitary reports which have been published in recent years, not one in a hundred omits to call attention to the causation of zymotic diseases by clearly marked and perfectly remediable hygienic defects.

Recognizing as we all must the unquestionable truth of this universal deduction, it becomes our chief interest and duty to consider the available means of prevention. Our more obvious professional office relates to the question of cure; but our higher professional and manly obligation must lead us to set far above this our duty to apply the means of prevention, not only in the daily walk of our private practice, but as members of the community, determined that the strongest influence and the highest authority shall be devoted to the work of universal prevention. Every case of disease originating by reason of a violation of perfectly well-known sanitary laws is a disgrace to our civilization, and an evidence of the literally criminal negligence of doctor, law maker, and health officer. "The hygienic means of prevention" referred to in our title are already sufficiently known. They need only to be made sufficiently widely known for these diseases, now so fatally active among our people, to become, like the plagues of the Middle Ages, diseases of the past. The lowest and most ignorant of our population avoid, as a matter of course, the conditions of life under which the plagues arose, and it is within the limits of possibility to lead them equally to shun the conditions by which they are now so ruthlessly scourged.

Our work has hitherto been too tame and too politic. Our sanitarians have, in a halting way, recommended such measures as they thought the community would easily accept, and have avoided the radical changes which they knew to be necessary to radical success. Probably no one who understands the subject would hesitate to admit that, if it were possible to secure the universal adoption of the best means of excrement removal and the proper conservation of other organic wastes, it would be possible entirely to eradicate certain of our gravest diseases. Those who believe in the controlling influence of the instinct of self-preservation will not be slow to recognize the fact that the first and most important step to be taken is to secure a popular realization of the methods of the present unconscious self-destruction. To this end it is our especial province to set forth, in a clear and unmistakable way, for the instruction of those who are the sanitary teachers of the public, the details of the work to be done and the reasons for their efficiency.

It seems to be demonstrated that the evacuations of the bowels have no effect in the production of the "common" ferment until a sufficient time has elapsed for decomposition to be set up in their constituent parts; also, that any specific ferment — or whatever we may choose to call the agency by which they transmit specific diseases — is of but little, if any effect, until it has undergone a certain process of development in connection with such decomposition. In other words, we have little to fear from freshly evacuated fæcal matter.

It may also be accepted as altogether probable, if not entirely demonstrated, that the condition under which the decomposition of fæcal matter takes place has a controlling influence over the character of the resultant products. Instant incineration will unquestionably destroy any ferments or disease-producing agencies with which fæces may be accompanied. The long and satisfactory experience with the earth closet, which has proved its efficiency under a great variety of circumstances, and especially as a barrier to the spread of cholera infection in the jails and military establishments of India, seems to make it safe to assume that the slower but equally complete destruction of fæces by oxidation within the pores of a mass of dry material is equally effective in this direction. This action of the oxygen condensed upon the interior surface of dry earth, charcoal, ashes, etc., is more rapid and efficient than is generally supposed. The writer has had occasion to observe it in a somewhat extended experiment. A family of four persons, using earth closets only, with but occasional exceptions, during a term of six years, was supplied with about two tons of absorbent material (dry earth and anthracite ashes). At the end of the term the accumulated mass, which had been used over and over again, at least ten successive times, was, to all appearance, not changed from its original condition. Neither the eye, the nose, nor the touch could detect any alteration. Careful chemical analysis showed its composition to be essentially the same as that of fresh earth prepared for closet use, as analyzed by Voelcker. The only variations were such as might be expected to exist between samples of earth taken from different sources. For instance, Voelcker's sample yielded 0.31 of nitrogen; ours, 0.28. Voelcker's contained 9.88 of organic and volatile matter; ours, 10.72. The contents of nitrogen in two tons of Voelcker's earth would be about 12 lbs.; in ours only 11 lbs.

It was estimated that the fæcal and renal additions to our material amounted to about 34 lbs. yearly for each person (dry matter), making a total of over 800 lbs., equal to twenty per cent. of the earth mixture. The added dry matter must have included over 230 lbs. of nitrogen. At the end of the experiment, our earth mixture probably contained no more organic matter or nitrogen than it did at the beginning. The whole 800 lbs. of added organic matter, including over 230 lbs. of nitrogen, had been destroyed by the oxidation of slow combustion as effectually as it would have been by the oxidation of quick combustion in a furnace.

The results of this experiment, which correspond with what we know of the destruction of both solid and gaseous organic matter in all admixture with aerated porous materials, serve to confirm and to explain the disinfecting action of atmospheric oxygen in all organic decomposition.

Effective scientific investigation is lacking to show the exact manner of development of the common and specific ferments of decomposing excreta. Analogy may be, here, our only guide. The study of the action of ferments as affecting the medium in which they are developed shows that their influence is modified, is indeed controlled, by the degree to which they are able to obtain their needed oxygen from the atmosphere. Yeast added to a fermentable liquid, amply supplied with air, flourishes with a rapid formation of carbonic acid. It has grown as a yeast-plant, but has caused no fermentation. The same spores mixed with a substance from which the air is excluded, as with beer-wort, in a barrel with only the bung open, find in the limited quantity of air absorbed by the liquid an inadequate supply of oxygen. The growth of the yeast-plant goes on and carbonic acid is produced, but, in the absence of other sufficient supply, the needed oxygen is obtained by the fermentative decomposition of the wort. Pasteur has described fermentation as *life without air.* All investigations concerning fermentation establish this fundamental principle: that its controlling condition is the entire or partial exclusion of air. We come now to an important hiatus in our chain of evidence, — a gap which can be filled only by careful experiment with the material under consideration. We know that *fermentative* decomposition can take place in excreta only with the total or partial exclusion of common air; we also know that low organisms, whose restricted growth induces fermentation, may grow and reproduce themselves in full force with full exposure to air. What it is now most necessary to learn is this: —

Does the morbific influence of human excrement reside in the reproductive spores of special organisms yielded to it by the diseased body, or of common ferments communicated to it otherwise; or does it reside in some condition of the material itself, which condition is due to fermentation? If the former, can these spores be produced by a growth of their particular organisms in freely aerated excrement; or do they require for their development a medium prepared for them by such an exclusion of air as will, under decomposition, change the character of the original dejections?

Until these questions are authoritatively answered, our reasoning on the subject must be less than scientific. In the present state of our knowledge, we are compelled to depend upon the imperfect results of restricted observation. At the same time, all indications point to the belief that with excrement, as with other organic wastes, the degree to which they cause or incite disease is in direct proportion to the degree to which their decomposition takes place without free exposure to atmospheric air. We know that by concentrating the action of oxygen upon organic matter through the medium of a porous covering like dry earth or charcoal, we secure a rapid, destructive decomposition, which, during long trial, has never been convicted — so far as the writer knows, has never been suspected — of producing any form of disease. The scattered deposit of fæces in the neighborhood of encampments is often a nuisance to the senses; but the health of the encampment is affected only when, for the sake of decency, conveniences are set up which lead to the accumulation of masses of excrement, to the interior of which the atmosphere has no access. Observation with this idea in view, concerning the relative influence of exposed privies as compared with that of those which are tightly inclosed, is probably wanting; but it is notorious that the outbreak of serious epidemics, especially of intestinal diseases, is traceable to unventilated cess-pools, unventilated sewers, and unventilated house drains much more often and to a much greater degree than any other source, save the contamination of drinking-water. The amount of evidence is less, but it is quite conclusive, which shows that where these unhealthful conditions have existed and have manifested themselves any reformation which excludes the air of these drains, sewers, and cess-pools from the interior of houses, even though they themselves may have remained unaltered, produces universal and decided benefit. Wherever the infection of houses by gases arising from such sources had existed over a considerable district, the improvement has always shown itself in a most unmistakable manner in both the death-rate and the sick-rate.

We shall not do all that it will ever become possible for us to do, if we accept the course here indicated, — that would be far too much to claim; but we shall do all that our present knowledge teaches us to do, and enough, as ample experience has shown, to prevent the spread of any intestinal infection. We now know enough to enable us to *suppress the cause* and to *remove the effect.*

(*To be concluded.*)

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RECENT PROGRESS IN THE TREATMENT OF DISEASES OF THE THROAT.[1]

BY F. I. KNIGHT, M. D.

Mucous Patch in the Larynx, with General Tertiary Symptoms. — In opposition to the views of Whistler,[2] Dr. Beverly Robinson [3] exhibited the larynx of a man who had had syphilis five years. On the posterior surface of the epiglottis there was a small lenticular ulceration, which presented rather an opaline and eroded appearance, and was surrounded by an elevated margin. He believed it to be an opalescent mucous patch in the larynx, a condition which, despite the frequency with which they are said to occur by some authors, he had never seen before. He was also convinced that authors were mistaken in describing syphilitic lesions of the skin and those of the mucous membrane as occurring together, and having the same grade, and said the present was a case in point, the man suffering from well-marked tertiary symptoms at the same time that there was a mucous patch in the larynx.

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[1] Concluded from page 197.

[2] See last number.

[3] New York Medical Record, December 28, 1879.

Relation between Membranous Croup and Diphtheria. — The report of the committee appointed by the Royal Medical and Chirurgical Society three years ago to examine into the relation existing between the diseases commonly known respectively as membranous croup and diphtheria has been presented. The following is a summary of its conclusions:[1] —

(1.) Membranous inflammation confined to or chiefly affecting the larynx and trachea may arise from a variety of causes, as follows: —

(*a.*) From the diphtheritic contagion.

(*b.*) By means of foul water, or foul air, or other agents, such as are commonly concerned in the generation or transmission of zymotic disease (though whether as mere carriers of contagion cannot be determined).

(*c.*) As an accompaniment of measles, scarlatina, or typhoid, being associated with these diseases independently of any ascertainable exposure to the special diphtheritic infection.

(*d.*) It is stated, on apparently conclusive evidence, although the committee have not had an opportunity in any instance of examining the membrane in question, that membranous inflammation of the larynx and trachea may be produced by various accidental causes of irritation, — the inhalation of hot water or steam, the contact of acids, the presence of a foreign body in the larynx, and a cut throat.

(2.) There is evidence in cases which have fallen under the observation of members of the committee that membranous affection of the larynx and trachea has shortly followed exposure to cold; but their knowledge of the individual cases is not sufficient to exclude the possible intervention or coexistence of other causes. The majority of cases of croupal symptoms definitely traceable to cold appear to be of the nature of laryngeal catarrh.

(3.) Membranous inflammation, chiefly of the larynx and trachea, to which the term "membranous croup" would ordinarily be applied, may be imported by an influence, epidemic or of other sort, which in other persons has produced pharyngeal diphtheria.

(4.) And, conversely, a person suffering with the membranous affection, chiefly of the air-passages, such as may commonly be termed membranous croup, may communicate to another a membranous condition limited to the pharynx and tonsils, which will be commonly regarded as diphtheritic. It is thus seen that the membranous condition of the larynx may arise in connection with common inflammation or with specific disorders of several kinds, the most common of which in this relation is that which produces similar change elsewhere, and is recognized as diphtheria.

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[1] British Medical Journal, October 26, 1878.

In the larger number of cases of membranous affection of the larynx the cause is obscure (that is, in any given case it is difficult to predicate the particular cause in that case). Among those in which it is apparent, common irritation seldom presents itself as the source of the disease; accidental injury is but very infrequently productive of it. But few cases of undoubted origin from exposure to cold are on record; on the other hand, in a very large number of cases, infective or zymotic influence is to be traced. The membrane, even when chiefly laryngeal, is more often than not associated with some extent of a similar change in the pharynx or in the tonsils; and whether we have regard to the construction of the membrane, or to the constitutional state as evinced by the presence of albumen in the urine, it is not practicable to show an absolute line of demarkation (save what depends upon the position of the membrane) between the pharyngeal and laryngeal forms of the disease. The facts before the committee only warrant them in the view that when it obviously occurs from a zymotic cause or distinct infection, and primarily affects the pharynx, constitutional depression is more marked and albuminuria more often and more largely present, though in both conditions some albumen in the urine is more frequently present than absent. The most marked division indicated by the facts before the committee is that between membranous and non-membranous laryngitis. The committee suggest that the term croup be henceforth used wholly as a clinical definition implying laryngeal obstruction, occurring with febrile symptoms in children. Thus croup may be membranous or not membranous; due to diphtheria, or not. The term diphtheria is the anatomical definition of a zymotic disease, which may or may not be attended with croup. The committee propose that the term "membranous laryngitis" should be employed, for the avoidance of confusion, whenever the knowledge of the case is such as to allow of its application. The report was signed by W. Howship Dickinson (chairman), C. Hilton Fagge, Samuel Gee, J. F. Payne, H. G. Howse, R. H. Semple, and W. S. Greenfield (secretary).

Membranous Laryngitis from Eau de Cologne.[1] — Reid reports the case of a patient who, during a faint, received some cologne into her nasal passages, pharynx, larynx, and trachea. On the second day two small ulcers appeared in the pharynx, and a small piece of membrane was coughed up. Within ninety-two hours a perfect cast of the larynx, trachea, and left bronchus was brought up in a piece, with instant relief to all urgent symptoms. Patches of membrane remained on the nasal mucous membrane till the end of the seventh day. The temperature varied from 99.4° to 97.4°, the pulse from 130 to 88. No albumen appeared in the urine.

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[1] British Medical Journal, No. 939, 1878. London Medical Record, May 15, 1879.

The Great Contagiousness of Diphtheria. — American physicians have not yet, we think, been sufficiently aroused to the very great danger of contagion and development of the worst forms of the disease from patients who are mildly affected. In his account of the outbreak of diphtheria in the grand ducal family of Hesse-Darmstadt, Oertel[1] says the virulence of the imported infectious matter, its direct transmission by kisses, and the quantum which was brought into play by this mode of transmission are of grave importance. We are fully justified in making direct use here of the results of experimental investigations and attempts at inoculation. The intensity of the affection, the degree of the anatomical lesions, and the rapidity with which the process destroys the life of the animal were in all Oertel's experiments, under like conditions, proportionate to the quantity of inoculated diphtheritic matter. We likewise see in practice that those cases run the most rapid and most fatal course in which *direct* transmission of contagious matter has taken place. Proof is to be found in the number of physicians who have fallen victims to the disease while in attendance on such cases.

Oertel says the diphtheritic contagium, the parasitical nature of which has become a conviction of his, is little volatile, is disseminated especially in the diphtheritic membranes and in the buccal fluid; and the infection takes place, in most cases, by its direct transmission, either by means of the atmospheric air, or by touching objects to which it adheres. Such objects are especially those coming in contact with the mucous membrane of the buccal cavity, etc., as spoons, tumblers; also pocket handkerchiefs, etc. The propagation of the diphtheritic contagium is much rarer, and we shall have to admit this way of transmission only when we are really in the position of completely excluding all other possibilities. It should be remembered by our readers that out of a household of sixty-eight persons only the members of the grand ducal family were affected (six of whom were attacked). Oertel says that diphtheria was imported into Munich from without in 1863, and has prevailed there ever since.

The treatment pursued in the case of the grand ducal family was that which Oertel has used for more than twelve years, and which he says he still finds the most efficacious in comparison with other modes. It consisted of isolation, inhalation of a disinfectant spray every hour or half hour for fifteen minutes or longer, and inhalation of hot steam (112° to 122°). The following solutions were made use of according to the period of the affection: 2.5 per cent. solution of potass. chl.; a 0.1 per cent. solution of salicylic acid; and, in the case of the grand duchess, when the septic decomposition began to become alarming, a

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[1] British Medical Journal, January 11, 1879.

0.25 per cent. solution of permanganate of potash, injections of freshly prepared dilute chlorine water, the solution containing from twenty-five to thirty per cent. of the officinal chlorine water. In those instances in which the fibrinous exudations began to involve the larynx, either the fluids just mentioned were exchanged for lime-water, or the latter was inhaled alternately with the others. Oertel believes, after experiment and bedside practice, that lime-water is still the best means for the solution of fibrinous membranes. Internally the fever and the septic infection were combated by the administration of salicylic acid and benzoate of soda in large doses (the grand duchess could not take quinine), and everything was done to keep up the strength by wine, arrack, cognac, and the ethereal tincture of the acetate of iron.

Oertel does not believe in the specific action of sulphur; yet it was used in some of the cases, so many letters came, especially from England, urging its use. [It is strange that all of these cases recovered.] Articles which had come in contact with the patient were disinfected; also all the rooms and corridors.

Excision of the Epiglottis. — Dr. William Porter, of St. Louis,[1] has led the way in an operation which may not improbably be performed hereafter, not only for morbid growth, but for other less serious though very annoying conditions. Porter's patient had a cartilaginous growth on the edge of the epiglottis, and the diseased mass, with quite one half of the epiglottis, was removed on a line from the upper right margin to the lower left side, just in front of its attachment. Prophylactic tracheotomy was thought unnecessary, as the patient had perfect control of his throat. Antero-posterior rectangle forceps with cutting edge was used, and the hæmorrhage was quickly checked by passing a sponge covered with Monsel salt over the cut surface. The profuse granulations which appeared were touched from time to time with nitrate of silver. The margin healed in a fortnight. At no time was deglutition more difficult than just previous to the operation, and six weeks later there was little, if any, functional disturbance.

[It seems as if this might be a proper operation in those cases in which a pendent relaxed epiglottis is constantly irritating the posterior wall of the pharynx. — REP.]

MASSACHUSETTS MEDICO-LEGAL SOCIETY.

REPORT OF THE EXECUTIVE BOARD ON THE WORK OF THE MEDICAL EXAMINERS FOR THE YEAR 1878.

THE executive board has the honor to report that of the sixty-two medical examiners who are members of the Massachusetts Medico-Legal Society, forty-two have reported their work for the year 1878. Of these, twenty-one have sent *complete* returns, — in other words, they have reported all their cases in detail, as well as made their "annual return;" two have made no annual return; nineteen have made no reports of cases; one sends an incomplete return of autopsies only.

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[1] American Journal of Medical Sciences, April, 1879.

From the forty annual returns it appears that the

Number of views made has been	828
Number of views followed by autopsy	196
Number of autopsies refused by authorities	none
Inquests held (included in foregoing): —	
(*a*) on recommendation of medical examiner	171
(*b*) without his recommendation and not in railroad cases	1
Inquests at which medical examiners testified	96
Cases reported by medical examiner as probably resulting from violence, in which no inquest was held	16
Deaths from natural causes	328
Fatal railroad accidents	117
Other fatal accidents	214
Deaths from suicide	92
Deaths from violence at the hands of others	68
Prosecutions resulting	30
Convictions resulting in cases finished	19

Comparing these figures with those for the six months, July to December, of 1877, during which the new law was in operation, we find the following: —

	In six months of 1877.	In 1878.
Views	443	828
Autopsies	116	196
Inquests	99	172

The relative proportions of views to autopsies and inquests vary but little for the two periods. When we compare the causes of death we find a difference in favor of 1878, thus: —

	Percentage in six months of 1877.	In 1878.
From natural causes	23.	39.6
" railroad accidents	17.3	14.
" other accidents	29.	25.8
" suicide	16.	11.
" violence proceeding from another	11.	8.2

The *percentage* of convictions to prosecutions was in six months of 1877 23.8; in 1878, 63.

In attempting to carry our analysis further, we encounter the same difficulty as before, namely, that of the "views" appearing on the annual returns but five eighths have been reported in detail. From the northern district of Suffolk, from Lowell, and from Cambridge, we have no "reports of cases." But from the five hundred and fifteen cases which have been duly returned to the corresponding secretary, it appears that of forty-three suicides there were by

Shooting	15	
Hanging	8	
Drowning	7	
Cut throat	5	
Laudanum	4	Poison, 7
Arsenic	2	
Oxalic acid	1	
Leaping from window	1	

Of the above, one took laudanum before shooting himself; one shot himself before cutting his throat; another tried hanging and shooting before he cut his throat. Two suicides first attempted murder, in one case successfully. One of the suicides by arsenic was an arsenic-eater. Ten suicides were known to have been insane.

Of seventy-eight accidental deaths, not by railroad, —

37 were by drowning (4 following shipwreck).
2 from asphyxia by coal gas.
2 from asphyxia by illuminating gas.
2 from suffocation in a well while blasting.
6 from falls.
7 from falling bodies.
5 run over by horse or vehicle.
1 by explosion of nitro-glycerine.
3 from machinery in motion.
1 from arsenic.
2 from scalds or burns.
1 from overlaying in bed.
5 from shooting.
1 from incised wound.
2 from freezing and exposure to cold.
1 from lightning stroke.

Of still-born infants and infants less than one week old, there were thirty-nine. Fifty-two deaths were reported as the direct or indirect result of intoxicating drinks.

Of deaths reported as by violence (proceeding from another), —

10 were caused by assault with axe, club, iron bar, or other instrument, producing injuries of the head.
4 by shooting.
2 by drowning.
2 by infanticide.
2 by cuts with knife.
1 by injury of bladder.
9 by criminal abortion, or attempts at the same (1 by oil of cedar; 1 by oil of tansy; 1 by turpentine injected into the uterus; others by instrumental or other means).[1]

One view was made upon a human leg found on the sea-coast, but not included in the examiners' annual summary.

One noteworthy point of difference between our Massachusetts reports and those from England, and also the mortality reports of our Southern States, is in the number of cases of infant suffocation in bed,— one only appearing in our reports for 1878; while in a single year one English coroner held ninety inquests on children "overlaid," or suffocated in bed. Most of these English cases occurred on Saturday night. In eight years three thousand six hundred and six were "suffocated by bed-clothes."[2]

Under the *régime* of the medical examiner, many cases of malpractice among irregular practitioners are brought to light, which would have been covered up or slurred over under the old coroners in the large cities.

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[1] Three of these deaths were through the malpractice of Mrs. Hayes, of Malden, and in one case of death following her practices the autopsy showed that pregnancy had not existed.

[2] Fourth Report Massachusetts Board of Health (1873), page 217.

If the three hundred and thirteen cases, of which we possess no more detailed knowledge than can be gathered from the annual summaries, had been duly reported to the corresponding secretary, and if to them had been added the cases of the twenty members who have neglected to make any return to this society, we should have nearly twice as much material to compare and analyze. The lessons deduced from this larger experience would be more valuable, and probably more trustworthy. If every member would overcome his indifference or his indolence, and report each "view" promptly, thoroughly, and methodically, it would be found to the advantage of the whole society, quite as much as to that of the secretary, since no man who does thorough and methodical work misses the satisfaction of finding that he has grown by such work.

Of the relative expenses of the coroner and the medical examiner no exact statement can be made at present, — the fees being paid by various officials, whose accounts have no connection one with another, and who report to no common centre. For views, autopsies, traveling expenses, and a portion of the burial expenses the county treasurer pays, while the expenses of inquests are paid in part by other officials connected with the courts. But those who, in different counties, have made, independently of each other, attempts to ascertain the cost entailed by the new system as compared with that of the old agree in estimating that it is from a quarter to a third less under the new than under the old.

In conclusion, the board wishes to acknowledge the very friendly and valuable assistance received from Dr. S. W. Abbott in making up this report. He took the burden at a time when the corresponding secretary was overworked and far from well.

THE NATIONAL DISPENSATORY.[1]

The Wood and Bache Dispensatory has held such prolonged sway in this field that we might expect no competitor would appear without a very careful preparation. So far as the pharmaceutical portion of the work is concerned our expectations are realized. Professor Maisch, whose name is a sufficient guarantee of accuracy, has in our opinion presented a very trustworthy pharmaceutical manual, which affords valuable information not readily found in any one book. In spite of his tersely expressed language, he seems to have omitted little that is needed. The substances of the materia medica (officinal and many unofficinal) are carefully described, and ought to be readily recognized by the statement of their appearance. The officinal character of each substance is stated, and if any unofficinal drug is mentioned its natural order and physical appearance is given in detail. The constituents or elements of the drugs are also described, so far as they may be known in modern pharmacy or chemistry; following this the preparations and their processes of manufacture are detailed; afterwards are mentioned the tests of purity of a drug or of its chemical character; next are given the preparations in which it may be found; finally, the physiological action, medical uses, and the administration are related, and these latter especially claim our attention.

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[1] *The National Dispensatory.* By Professor Alfred Stillé, M. D., and Professor John M. Maisch, Ph. D. Philadelphia: Henry C. Lea. 1879.

This portion of the book was in all probability edited by Professor Stillé, and is very much condensed. This may account somewhat for the dogmatic style used by the author, but would hardly justify the omission of doses of most of the preparations which have been so carefully described in the pharmaceutical portion; for in the article on arsenic, a dose (five minims) is mentioned with no particular preparation in the context; it is fair to assume that our author refers to Fowler's solution (liquor arsenicalis), though another solution (liquor arsenici chloridi) is mentioned on a previous page; again, under the head of administration, the only preparation and dose is that of arsenious acid. In the article on cannabis indica the dose of the solid extract only is given, though three officinal preparations have been previously described. The dose of digitalis is stated in grains, which might refer either to the powder or the solid extract; the fluid extract, the infusion, and tincture of digitalis are all mentioned, but the dose of neither is stated; the dose of digitoxin is incidentally mentioned in the text, though digitalin has been described as the active principle. We notice the same omissions in reference to belladonna and of many other officinal as well as unofficinal preparations of the materia medica; even in ipecacuanha, of which at least six officinal preparations are given, a mention of the dose only of the powder and infusion occur. Occasionally the doses are specified in the metric system. We will not multiply the instances of this omission, which may have been intentional: whether this supposition be true or not, it seems a serious defect in a work of the scope which this professes to have.

He who reads the therapeutical portion of this book with the hope of seeing an epitome of our present knowledge may be discouraged at the rather loose manner in which the effects of medicines which have been lately introduced to the profession are described. The physiological action of salicin is mentioned as if all its virtues were comprised in an acid, and the therapeutical effects of the acid, salicylate of soda or of quinia, and salicin are not presented under the head of each of these medicinal agents, but we get rather a confused idea of all. Our author says (page 72) salicin "when taken internally has the same effects as salicylic acid in preventing the fermentation of urine in the bladder, because in the system it is converted into that acid;" and (page 1215) of salix, "Its active principle, salicin, does not, like quinia, exert any marked influence in preventing or retarding putrefaction or fermentation." These two statements are each mentioned under the head of physiological action.

The medical uses of dialyzed iron are very curtly expressed; after the painstaking way in which its pharmaceutical preparation is described, the reader will hardly be satisfied with the information received from Professor Stillé's evident prejudice against the medicinal agent. The same remark might be appropriately made in connection with the article on pepsin. After a careful reading of this portion of the Dispensatory, we can hardly refrain from expressions of surprise that Professor Stillé should allow his own personal experience with medicinal agents to outweigh the patient researches of men whose whole life has been devoted to the study of some especial drug. For instance, the therapeutical effects of digitalis are given almost entirely from the author's individual experience, and from his writing we should be likely to assume the author had been endeavoring to see how much was wrong in the experiments and observations of others, among whom we might name Traube and Fothergill, rather than how many of their theories were proved to be right. The practical application of his views would tend largely to a skeptical disbelief in the utility of prescribing this drug in organic disease of the heart. While admitting that digitalis produces a tonic action upon the cardiac muscular fibres, especially of the left ventricle, he denies this tonic action upon the arterial tissue (page 504): "That digitalis does not give a real increase of power to the heart is shown, ... but beyond this it tends to obstruct the cardiac circulation, and, by suddenly preventing the free passage of blood through the heart, to cause syncope." We will not discuss this point more fully, but leave the general reader to judge of the truth of our criticism. It would seem that a dispensatory possessed just the field for a discussion of the action of single or continued doses, the proper dose to produce certain effects of the given drug, without inducing secondary or toxical actions. This has not been attempted so far as our observation goes, in this book. The analytical index is very conveniently arranged and full.

KLEIN AND SMITH'S ATLAS OF HISTOLOGY.[1]

The third and fourth parts of this admirable work deserve all the praise which we gave to their predecessors. Indeed, the more we see of this work the better we like it. The third part takes up fibrous connective tissue (the corpuscles had been discussed in the second), and gives a good account of the different forms. Then come fat cells and pigment cells. The authors point out the resemblance of adipose to glandular tissue. "It is a tissue possessed of an afferent artery, one or more efferent venous branches, and a rich net-work of capillary vessels supplying the elements of the tissue, namely, the fat cells. The meshes of the net-work are relatively small, in some places embracing only one, in others two or three elementary fat cells. These latter are arranged, by means of connective tissue, in smaller or larger groups, lobules, and these, again, are aggregated into lobes. As in other gland tissue, so also here, each lobe and lobule have their respective branch of artery and vein (or veins)." It is shown later that what at one stage is lymphatic tissue is liable, under favorable circumstances, to be transformed into fat. This part contains also an account of cartilage.

The fourth part is devoted to bone and to its development. The difficulties that beset the latter branch of the subject are well known. We have wrestled with a good many accounts of the phenomena of ossification and growth of bone, and have generally suffered severely; our ideas on the matter have, indeed, been repeatedly dislocated. Now we will back any student who is properly trained, patient, and industrious to being equal, in the language of Silas Wegg, to "collaring and throwing" the adversary on the spot. We are not familiar with anything so good on the subject. The illustrations are very handsome one of an injected specimen stained both with carmine and hæmatoxylin being especially noteworthy. T. D.

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[1] *Atlas of Histology.* By E. Klein, M. D., and E. Noble Smith, L. R. C. P., etc. Parts III. and IV. Philadelphia: J. B. Lippincott & Co. London: Smith, Elder & Co. 1879.

THE HEALING OF ARTERIES.

One of the most difficult, and, at the same time, important problems in the study of repair is the solution of the mystery enshrouding those processes by which blood-vessels are restored after injury. We have here a combination of conditions essentially different from those which concern the repair of any other structure of the body; for not only the solid vessel, but also its fluid contents, seem to play a conspicuous part in the regenerative changes. It is a subject which has interested surgeons ever since the days of Ambrose Paré, but during the last century and a half it may fairly be said to have claimed the attention of scientific observers. It is a gratifying sign of the tendency of American physicians to devote more of their time to the scientific departments of medicine, to add to, as well as to utilize, medical knowledge, that the recent investigations of Dr. E. O. Shakespeare, of Philadelphia, have enabled us to obtain a much more satisfactory understanding of the nature of the healing process in arteries, and to unravel many of its seeming complications. These were embodied in a paper to which the Warren Triennial Prize for 1877 was awarded, and with a few additions they have recently appeared for the first time in print as No. VII. of the Toner Lectures, published by the Smithsonian Institution.

The question on which observers have been chiefly at variance relate to the part played by the thrombus in the process of repair. Does the thrombus become organized and form the cicatrix, or does it play a perfectly passive rôle and finally crumble up and disappear, the wall of the vessel doing the work? One view or the other has alternately prevailed, until the discovery of the peculiar habits of the white corpuscles by Cohnheim seemed to throw the balance in favor of the thrombus as a healing agent. Such, in fact, is the position assigned to it by the standard works on pathology to-day, as, for instance, Billroth. The views thus freely disseminated have received recent application to the healing of wounds when extensive blood clots under the protecting influence of the Lister dressing are supposed to form the future cicatricial tissue. Moreover, now that the fixed connective tissue cell was considered to take no active part in inflammation, the vessel walls had to be looked upon more than ever as dependent upon the thrombus for the supply of the new tissue. We have not the space to give even a concise summary of the careful and extensive series of experiments of the author. Suffice it to say that they settle most conclusively that the blood clot has nothing whatever to do with the formation of the cicatrix. It acts simply as a temporary barrier to the course of the blood, and as a foreign body whose tendency is to produce a certain amount of irritation in the adjacent internal coat of the vessel. The healing of an artery after ligature is effected by the formation of a plug of tissue which emanates from the endothelium and subjacent cellular elements of the tunica intima. To this structure he has given the name *plastic clot*, to distinguish it from the *fibrinous or blood clot*. The former develops beneath the latter, and gradually pushes it upward, until, separated from the adjacent walls, it finally disappears. The structure of the blood clot is peculiar, not being a simple, homogeneous mass, as is usually supposed: it has a stratified arrangement lying in spiral coils, the blood column retaining its cylindrical form as it is coiled up in the distended cul-de-sac of the stump. These are a few of the points settled by his investigations, but the tracing of the plastic clot through its various stages of development is alone of great importance as disposing of the organization of the thrombus theory more effectually than any observations with which we are acquainted. Dr. Shakespeare shows the qualities of a good observer, and if he continues his researches in the domain of pathological histology will be sure to give a good account of himself. We would also call attention to the value of such encouragement as the funds of the Warren prize and Toner lectures hold out for good original work of this kind.

PRIVATE ASYLUMS.

Readers who consult our advertising columns will observe that the number of private asylums for the treatment of mental and nervous affections increases both in Massachusetts and in other States, partly, perhaps, a result of the agitation against the larger hospitals. But these smaller institutions fill a different sphere, since they are intended only for a class of patients who are able to pay remunerative fees, as is the case with but a small proportion of the asylum patients. Such invalids can, as a rule, be made much more comfortable in a private establishment, where the aim of the physician in charge is to supply, as far as circumstances will admit, beside suitable medical treatment, the pursuits and diversions which are most congenial or desirable.

As before observed, we are informed of several such institutions, all of which are well and successfully conducted in this and the neighboring States. The one lately established by Dr. Walter Channing, being within convenient driving distance of Boston, we have visited personally. The high character, skill, and care of Dr. Channing, the well-equipped and commodious house, with its charming grounds and beautiful neighborhood, appear to offer all the desiderata for promoting that state of mind in the invalid which is most conducive to cure. In many such cases the comforts, even luxuries, of domestic life are of prime importance.

THE MEDICAL REGISTER FOR NEW ENGLAND.

The success of Dr. F. H. Brown's undertaking, by which we have been supplied with a book containing all the information needed by physicians in a large and populous section of the country, has been well deserved. In order that it may contain the very latest facts frequent editions are necessary, and we are glad to be able to announce that a new one is to be issued in October. Physicians should remember that the continued success of such a public-spirited work depends largely upon the support and assistance given it by the profession. It is valuable in proportion to the amount of accurate detail given, and this can be obtained only by the direct coöperation of those for whom the book is intended. It is particularly important that all societies and institutions of a medical character should be represented. All returns should be made at an early day to secure admission to the forthcoming edition. Those who have once availed themselves of this book will, we think, agree with us that it is an invaluable addition to the physician's table. It will serve as a model for all future registers of other parts of the country.

MEDICAL NOTES.

— The State Board of Health (Lunacy and Charity) are now engaged in an investigation of the merits of Mystic Pond as a water supply. The case was brought before them by the cities of Boston and Somerville, under the law forbidding the pollution of water supplies (the same wise laws of our State expressly *allow* bathing in Lake Cochituate!). The complaint is against four tanneries, the proprietors of which discharge refuse into tributaries of the pond. After a view of the premises, the parties polluting the pond agreed to enter the sewer provided by the city of Boston, and the hearing has been suspended for a few days to allow that to be done. There are several tanneries in another tributary of the pond, and large quantities of filth reach it indirectly from other sources still, and these will probably all be proceeded against in due time. The impurity, however, which now renders the pond water unpalatable, unsightly, and unfit to drink is of entirely vegetable origin, identified by Professor Farlow as the *Clathiocystis*, which is also found in pure pond waters, but probably in much less quantity than when associated with filth. Like the Niles case in Cambridge, these cases will without doubt result in a thorough investigation of the whole water-supply question, and it will certainly not be long that we shall see drinking-water peddled from door to door almost within sight from the State House, and policemen stationed to keep order among people rushing for spring water from a large city fully supplied with water-service pipes.

— During last month there have been severe and fatal cases of diphtheria and scarlatina along the valley of the Connecticut and Ammonoosuc rivers; also mild cases of typhoid fever. In Rumney, on Baker's River, there have been severe diphtheria cases; and a fatal cattle disease. This cattle disease will be more fully reported at another time.

— In a letter to the London *Lancet*, the writer quotes the following passage from a letter written by Edison: "I am at present experimenting on a stethoscope, with every prospect of success; but the instrument will be very expensive, and for this reason cannot come into general use. The microphone, so called, cannot be used for this purpose, as it translates extraneous sounds, and is in no way reliable."

— Dr. Millet, a French army surgeon, recommends powdered aloes as a dressing for wounds. It acts as a cicatrizant, and as a means of occlusion. It assuages the severe pains of wounds almost immediately, and requires renewal only at long intervals.

— The empress of Germany has offered a prize of 2000 marks ($500) for the best essay on diphtheria. The conditions are that the writer is to bring forward important *new* facts as to the essential nature of the disease, especially with regard to the infectious matter which propagates it, its dissemination, and the means for arresting its progress. The essays may be written in English, German, or French, and be sent to Prof. V. Langenbeck, Berlin, N. W., 3 Roonstrasse, on or before December 15, 1880. The committee of award consists of Professors Klebs, of Prague; Liebreich and Virchow, of Berlin; Von Nägeli and Oertel, of Munich; and Thiersch, of Leipsic. As is usual, a motto is to be attached, and a similar one in a sealed envelope.

— Efforts are being made in London to reform the coroner system. The *Lancet* advises the appointment of medical men as coroners. The committee appointed for the purpose recommends the election of legal coroners.

— The medical men of Berlin and neighborhood, in honor of the golden wedding of the emperor and empress, have subscribed the sum of 13,500 marks to found a charitable fund for the relief of such of their distressed brethren as shall have resided within the district at least two years, or of their widows and children.

NEW YORK.

— The new tenement-house law, which provides for the inspection and survey of tenements as regards their construction, sanitary condition, and population, went into practical effect on the 1st of August, when the corps of inspectors recently appointed, after having received full instructions from the president of the board of health, Professor Chandler, and Assistant Sanitary Superintendent Jones, commenced their labors in the seventeenth ward (on the east side), which is the most densely populated in the city. Each inspector was assigned a block, in which he was to visit every house, and he was then to furnish a report containing accurate information in regard to all the points designed to be embraced in the survey. The board of health has asked for a detail of sanitary police to assist the inspectors, and in order to defray the expenses of this force the board of apportionment has now assigned fifteen thousand dollars to the health department for the purpose.

— The police are generally supposed to serve in the capacity of protectors of society, but in such a high-handed manner have they been conducting themselves of late that one of the newspapers not inaptly styles their performances as the "plague of the locust," and society is fain to cry out, "Save me from my friends!" Thus to give but one or two instances out of many that might be mentioned, a respectable farmer from Bay Ridge, Long Island, was recently arrested and subjected to many indignities, it being alleged that he was "drunk and disorderly," when in reality he was suffering from paralysis and partial aphasia, and was perfectly sober. Again, an engineer, quite advanced in life, was arrested one evening for some supposed offense of a trifling nature, and was so severely clubbed by the officer who made the arrest that the next morning, when the latter was about to take him to court, he was so frightened at the bloody appearance of the prisoner that he took him to Bellevue Hospital instead, and left him, no doubt concluding that it was the most prudent course for himself not to appear against him. But this is not all. The next morning, when the old man was on his way to the hospital to have his wounds dressed again, he sat down on a doorstep to rest (his head being dizzy from loss of blood and the effects of the beating which he had received), he was arrested by another officer on the charge of drunkenness, in consequence of which he was sent to jail for five days, and his wounds allowed to take care of themselves.

— A woman in Brooklyn arrived at rather a hasty conclusion in regard to her husband the other day. The good man had been suffering for some time from cardiac disease, and while seated at dinner he suddenly fell to the floor. He presented every appearance of being dead, and an undertaker was summoned; but when the latter was about to lift the supposed corpse into his ice-box, what was his astonishment to hear it sneeze! Accordingly the ice-box was removed, and a physician sent for, and at the last accounts the patient was doing very well.

— The German Hospital and Dispensary in this city, being in need of funds, the various German societies recently held a very successful four days' summer festival for its benefit at Schützen Park, Union Hill, Hoboken, when music, fire-works, dancing, tumbling, racing, shooting, and all sorts of games were participated in by great numbers for the sake of charity.

CHARLESTON, S. C.

— Notwithstanding the opinion that disease may arise *de novo*, and that the restrictions of quarantine are as needless as they are inhuman, it is gratifying to announce that the quarantine laws have been rigorously enforced. To portect Charleston from refugees from Memphis the mayor has ordered even land quarantine, designating Yemasee on the Savannah and Charleston Railroad, Branchville on the South Carolina Railroad, and Florence on the Northeastern Railroad as the points beyond which they shall not pass. They have been no less vigorous as regards sea quarantine, for the revenue cutter Moccasin is all the while at quarantine ground carrying out the national quarantine laws. So far not a single case of fever is in port.

Dr. A. N. Bell arrived here the other day, sent by the National Board of Health as quarantine and sanitary inspector of the Atlantic coast from Norfolk, Va., to Brunswick, Ga., — a coast line of nearly a thousand miles. The editor of the *Sanatarian* is reported by the *Herald* as finding filth enough in many streets and lanes to *engender* any amount of yellow fever, which opinion if truthfully reported, we trust will not interfere with properly directed endeavors on his part to enforce a rigid quarantine.

— We called attention a few days since to the action of the city council in suspending such work as necessitated digging up the streets. This ordinance, prohibitory of any such work during the summer months, has again very much embarrassed Mr. Easterlin, engaged in putting up the poles for the telephone wires; considerable indignation was expressed, but the work has been resumed. Over one hundred poles are now in place, and should no further objections arise, and this enterprising business be rapidly urged on, in a very little while Charleston will undoubtedly transmit voices of praise for all the wisdom and learning of so indulgent a body as its city council.

— We have been pleased to learn that Dr. J. Lawrence Smith, a Charlestonian by birth and education, though for some years past a resident of Louisville, Ky., was elected member of the Institute of France, as successor to Sir Charles Lyell — having obtained forty-two out of forty-seven votes — in the department of mineralogy and geology.

LETTER FROM NEW ORLEANS.

Mr. Editor, — The appearance of yellow fever in this city is now known throughout the country, and its mode of origin and progress to the present time may be of interest to your readers.

The existence of the fever in New Orleans was not suspected until after the occurrence of several cases near Mississippi City, a watering-place on the gulf coast seventy miles east of us, which attracted attention a little more than two weeks ago. A servant-girl, belonging to a family residing about two miles from Mississippi City, had been living in a family named Stout, in the upper portion of the city. She returned home on July 13th, feeling unwell, and died on the 16th, with symptoms strongly suggestive of yellow fever. Other children of the family sickened in rapid succession, after July 18th, and the cases were investigated by physicians from New Orleans and Mobile, besides the local medical men. The Mobile and local physicians from the first regarded the cases as yellow fever, but most of our doctors inclined to pronounce them hæmorrhagic malarial fever, until the death of another child after black vomit and suppression of urine. Post-mortem examination confirmed the diagnosis of yellow fever, and settled the matter.

It also transpires, on investigation, that no less than seven members of the Stout family in New Orleans had previously undergone febrile attacks, of so mild a degree that the attending physician did not even suspect yellow fever, the first case having sickened as early as June 16th. The house occupied by this family had had cases of the fever in 1878, but the family had passed the summer near Mississippi City, and none of them had had the disease.

Except in the Stout family there was no further appearance of yellow fever in New Orleans until July 22d, when a young child of one of our physicians, living in that neighborhood, was taken sick. This child was born in the city, passed through last year's epidemic unharmed, and her case was not supposed to be yellow fever, being of a mild type, until the occurrence of a fatal case still nearer the residence of the Stout family, — an Italian girl, sixteen years of age, taken sick July 24th, and dying early on the 28th. Since then three other undoubted and two more presumable cases have occurred in the same neighborhood. Of this group of cases two have died, and the remainder may be regarded as convalescent.

In addition there has been one other case. On the evening of July 27th a Frenchwoman, who had formerly lived in New Orleans, but who arrived from France last January, and went to Morgan City in April, returned from the latter place with her child, three years old, which had sickened two days previously there. On the 28th the child had black vomit, and a physician was called in for the first time. Suspecting yellow fever, he came immediately to the office of the board of health, which is within four hundred feet of the house where the woman was staying, and I visited the case with him. We thought it best to suspend judgment till he could make an examination of the urine. Meeting again the following day, and he reporting the urine albuminous, we did not hesitate longer to declare the case yellow fever. After this day there was no more black vomit. The fever abated, and the child appeared better. Later an unfavorable change supervened, and the little patient died at the close of the seventh day. Up to the present time no other case has occurred in this locality, nor at Morgan City, so far as we learn. (Morgan City is a railroad terminus on Berwick's Bay, eighty miles west of New Orleans, and was visited by the fever in 1878.)

It remains to add that these few cases have led to numerous quarantine proclamations against New Orleans to the northward and eastward; but here our apprehension is less of a general epidemic than of interruption of intercourse with inland communities. Very truly yours, S. S. HERRICK.

P. S. The two presumptive cases above-mentioned are reckoned as yellow fever, making seven cases exclusive of the Stout family and the one case which which came through the quarantine on the steamship Baltimore, from Havana, in March. S. S. H.

NEW ORLEANS, 260 MELPOMENE STREET, *August* 4, 1879.

SHORT COMMUNICATIONS.

CORPORAL PUNISHMENT.

MR. EDITOR, — My attention has for a number of years been called to injuries caused by occasional cases of too severe or recklessly executed punishment of school-children. Foremost educators, while not believing it expedient to prohibit corporal punishment, acknowledge that injury, injustice, and sometimes death, even, do now and then occur from its use. These serious results may arise from fright, or from concussion of the brain produced by merely jerking the child about, or — the most frequent cause — inflicting the punishment upon the child's head. I have known death to occur solely from the fright, although fatal results are not likely to arise except from immediate blows upon the head. No one form of punishment is so dangerous as boxing the child upon the ear. Not only is injury to the organ of hearing often produced, but inflammation of the brain frequently follows, and death has been the result.

In the family this matter of injurious methods of chastisement is not by any means beyond our influence if we will but take pains to inform the people upon the subject. If corporal punishment is allowed at all in schools, its use ought to be carefully guarded. No teacher should be allowed to correct a child by rudely jerking it about; by striking it anywhere upon the head, or with any instrument whatever, except it be flexible and with smooth edges. These requisites are best fulfilled by a rubber strap with rounded edges. Moreover, no punishment should be permitted except it be inflicted in the presence of a principal, another teacher, or a school trustee, as a salutary check upon undue temper or excitement. Every case of corporal castigation should also be reported in writing to the board of school trustees, stating the offense of the pupil and the manner and severity of the punishment. I have known the above rules, adopted by a board of school commissioners, to reduce the number of cases of corporal punishment eighty-eight per cent. in one month, and the schools continued meanwhile even more orderly and satisfactory than before.

I am about collecting statistics of serious and fatal injuries caused by corporal punishment, and I write this article to request all the readers of this journal to forward to me statistics and history of all cases that may have come to their knowledge; state the date, place, name of child, character of chastisement, and its results; also the offense for which the punishment was inflicted. Add other points, history, etc., if time and inclination suggest.

I urge all to give the subject the little attention needed, to write me the main facts at least of all cases that they have known, and thereby make the report more valuable. The information thus obtained I will communicate through this journal.[1]

BLOOMINGTON, ILLINOIS. B. P. MARSH, A. M., M. D.

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[1] Other journals please copy.

REPORTED MORTALITY FOR THE WEEK ENDING AUGUST 2, 1879.

Cities.	Population estimated for July, 1879.	Reported Deaths in each.	Annual Death-Rate per 1000 during the Week.	Percentage of total Deaths from				
				The Principal "Zymotic" Diseases.	Diarrhœal Diseases.	Pneumonia.	Diphtheria and Croup.	Scarlet Fever.
New York	1,085,000	636	30.56	38.37	30.35	3.46	1.73	1.26
Philadelphia	—	—	—	—	—	—	—	—
Brooklyn	564,400	280	25.86	40.00	30.00	3.93	3.57	.71
Chicago	—	228	—	38.59	28.51	.88	3.94	3.94
St. Louis	—	150	—	39.33	30.00	2.67	—	—
Baltimore	365,000	167	23.85	34.73	22.16	3.59	1.19	4.79
Boston	350,000	202	30.10	42.57	36.63	3.47	1.49	.99
Cincinnati	280,000	103	19.18	31.07	23.30	1.94	.97	5.82
New Orleans	210,000	—	—	—	—	—	—	—
District of Columbia	160,000	86	28.03	27.91	19.77	1.16	1.16	—
Cleveland	—	78	—	47.44	43.59	—	—	—
Pittsburgh	—	86	—	44.19	30.23	2.33	4.66	2.33
Buffalo[1]	—	—	—	—	—	—	—	—
Milwaukee	—	49	—	42.86	34.69	—	6.12	—
Providence	101,500	37	19.01	43.24	35.14	2.70	—	5.41
New Haven	60,000	22	19.12	18.18	13.64	—	—	—
Charleston	57,000	45	41.16	24.44	8.89	2.22	6.67	—
Nashville	27,000	11	21.24	45.45	18.18	—	—	—
Lowell	53,300	31	30.31	29.03	29.03	—	—	—
Worcester	52,500	30	29.80	56.67	46.67	—	6.67	—
Cambridge	50,000	28	29.20	60.71	50.00	3.57	7.14	—
Fall River	48,500	32	34.40	46.88	28.13	—	6.25	12.50
Lawrence	38,200	16	21.84	43.75	37.50	—	6.25	—
Lynn	34,000	13	19.94	38.46	30.77	—	—	—
Springfield	31,500	18	29.79	27.78	27.78	5.56	—	—
New Bedford	27,000	18	34.76	38.89	38.89	—	—	—
Salem	26,400	9	17.78	66.67	44.44	—	11.11	—
Somerville	23,350	10	22.33	30.00	20.00	—	—	—
Chelsea	20,800	7	17.55	28.57	14.29	—	14.29	—
Taunton	20,200	4	10.32	25.00	25.00	—	—	—
Holyoke	18,200	19	54.44	42.11	26.32	5.26	—	5.26
Gloucester	17,100	3	9.15	—	—	—	—	—
Newton	17,100	—	—	—	—	—	—	—
Haverhill	15,300	9	30.67	33.33	33.33	11.11	—	—
Newburyport	13,500	8	30.90	37.50	37.50	—	—	—
Fitchburg	12,500	2	8.34	—	—	—	—	—

[1] Total not reported; principal infectious diseases 27, diarrhœal diseases 9, pneumonia 1, diphtheria and croup 6, scarlet fever 4.

Two thousand four hundred and thirty-seven deaths were reported, about the same as for the previous week, allowing for cities not heard from: 970 from the principal infectious diseases, 734 from diarrhœal diseases, 284 from consumption, 64 from pneumonia, 62 from diphtheria and croup, 48 from scarlet fever, 31 from bronchitis, 31 from whooping-cough, 30 from malarial fevers, 23 from typhoid fever, 16 from measles, 13 from cerebro-spinal meningitis, 10 from erysipelas, seven from trismus nascentium, one from small-pox (New York). From *whooping-cough,* nine deaths were reported in New York, seven in Brooklyn, five in Boston, two in St. Louis, District of Columbia, and Pittsburgh, one in Cleveland, Cambridge, and Salem. From *malarial fevers,* nine in New York and St. Louis, six in Brooklyn, two in Baltimore and Nashville, one in New Haven and Charleston. From *typhoid fever,* four in Baltimore, three in New York, District of Columbia, and Charleston, one in Brooklyn, Cleveland, Pittsburgh, Buffalo, Milwaukee, and Nashville. From *measles,* three in New York and Pittsburgh, two in Brooklyn, Chicago, St. Louis, and Baltimore, one in Cleveland and Worcester. From *cerebro-spinal meningitis,* three in Buffalo, two in New York, Baltimore, and Holyoke, one in Chicago, Providence, Lynn, and Somerville. From *erysipelas,* four in New York, three in Buffalo, one in Baltimore, Cincinnati, and District of Columbia. From *trismus nascentium,* five in Charleston, one in Baltimore and District of Columbia. The death-rate of whites in District of Columbia was 21.09; of colored 41.41. Yellow fever declined in prevalence and fatality in Memphis, with no indication of probable prevalence elsewhere.

Consumption, bronchitis, whooping-cough, and diarrhœa were somewhat more fatal than in the previous week; scarlet fever less so. In eighteen of the nineteen cities of Massachusetts, with an estimated population of 841,950, the gradual increase in diarrhœal diseases continued.

The weather was hot and dry; mean temperature in Baltimore 79.6°, range 22°. The meteorological record for the week in Boston was as follows: —

Date	Barometer.	Thermometer.			Relative Humidity.				Direction of Wind.			Velocity of Wind.			State of Weather.[1]			Rainfall.	
	Mean.	Mean.	Maximum.	Minimum.	7 A. M.	2 P. M.	9 P. M.	Mean.	7 A. M.	2 P. M.	9 P. M.	7 A. M.	2 P. M.	9 P. M.	7 A. M.	2 P. M.	9 P. M.	Duration.	Amount in Inches.
July 27	29.797	74	85	59	97	60	73	77	NW	W	W	5	9	8	O	F	F	—	.23
" 28	29.942	76	88	66	66	68	78	71	W	E	W	9	6	4	F	C	O	—	—
" 29	29.938	76	90	63	87	55	82	75	O	SW	SW	0	4	5	H	F	F	—	—
" 30	30.003	75	89	69	90	69	75	78	SW	SE	S	4	5	8	F	F	F	—	—
" 31	30.138	72	83	68	75	63	75	71	NW	E	SE	4	8	5	F	C	C	—	—
August 1	30.092	76	91	66	78	52	70	67	W	E	SW	6	7	7	C	C	C	—	—
" 2	29.965	82	95	70	81	38	70	63	W	W	SW	10	10	13	C	F	C	—	—
Week.	29.982	75	95	59				72		SW		1082 miles						6.5	.23

[1] O., cloudy; C., clear; F, fair; G., fog; H., hazy; S., smoky; R., rain; T., threatening.

During the week ending August 9th there were 30 deaths from yellow fever and 134 cases (beside 18 reported late Saturday night) in Memphis, showing pretty nearly the same number of deaths as in the previous two weeks, but a very large increase in the number of cases reported, and, excluding the two convalescent cases in New Orleans, there are none others known in the Southern cities, there being a few at the various quarantine stations.

For the week ending July 12th, in 149 German cities and towns, with an estimated population of 7,533,030, the death-rate was 27.5 (previous week 28.1), with a moderate increase in scarlet fever, diphtheria, whooping-cough, and acute pulmonary diseases, and a decrease in diarrhœa and consumption. Three thousand nine hundred and eighty-one deaths were reported: 789 from diarrhœal diseases, 466 from consumption, 291 from acute diseases of the respiratory organs, 98 from diphtheria, 55 from scarlet fever, 51 from whooping-cough, 39 from measles, 38 from typhoid fever, 10 from puerperal fever, two from small-pox, one from typhus fever. The death-rates ranged from 12.0 in Kiel to 43.2 in Berlin; Königsberg 36.2; Dantzic 37.8; Breslau 31.8; Munich 30.3; Stuttgart 19.2; Dresden 23.7; Leipsic 15.3; Hamburg 20.0; Hanover 16.6; Bremen 20.6; Cologne 21.9; Frankfort-on-the-Main 22.3; Strassburg 35.5. Also for the same week, Vienna 29.8; Prague 33.5.

For the week ending July 19th, in the 20 English cities having an estimated population of 7,383,999, the death-rate was 17.1, a decrease of 0.5 from the previous week, showing an increase in measles and a moderate decrease in pulmonary diseases; whooping-cough, diarrhœa and fever, scarlet fever, diphtheria, and small-pox remained nearly the same. The death-rates ranged from 11.2 in Plymouth to 22.4 in Newcastle; London 17.2; Brighton 12.8; Bristol 15 7; Birmingham 16 2; Liverpool 19.6; Manchester 19.6; Leeds 16.7. For Edinburgh 18, Glasgow 16, Dublin 29 (small-pox the same). In the same week, Paris, 21.6; Geneva, Basle, Berne, Lausanne, and Zurich 22.4.

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BOOKS AND PAMPHLETS RECEIVED. — The Brain and its Diseases. Part I. Syphilis of the Brain and Spinal Cord, showing the Part which this Agent plays in the Production of Paralysis, Epilepsy, Insanity, Headache, Neuralgia, Hysteria, Hypochondriasis, and other Mental and Nervous Derangements. By Thomas Hutch Douse, M. D., etc., etc. New York: G. P. Putnam's Sons. 1879.

Precautions Requisite in the Administration of Ergot. By J. N. Compton, M. D. (Detroit Lancet.)

Thirty-sixth Annual Report of the Managers of the State Lunatic Asylum, Utica, N. Y., for the Year 1878.

THE BOSTON
MEDICAL AND SURGICAL JOURNAL.

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EXCREMENTAL DISEASES: THEIR CAUSATION AND THEIR PREVENTION BY HYGIENIC MEANS.

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THE processes by which we are to seek our end are chiefly mechanical. They call for the services of the mason and the plumber rather than for those of the doctor. But the mason and the plumber have to be taught to do their work, and the employer is, above all, to be taught the necessity of having it done, and of having it properly done. There is no class of the community so well situated, in all respects, to give this instruction, and to enforce it, as the members of the medical profession. The health officer, the sanitarian, and the paragraphist may do much in the slow work of awakening public opinion; but the family physician speaks with the voice of authority. His prescription for the removal of the sources of foul air will produce an effect which can be produced in no other way so surely.

It may seem at first sight as something beyond the limit of a physician's duties to do work which should have been done by the architect and the city engineer; but if we consider that his first and greatest duty is to exert himself to the utmost for the prevention of disease, we shall see that he can no more transfer his responsibility to the architect than, in the curing of disease, he can transfer it to the apothecary. To continue the comparison, it is no more important that he should understand therapeutics for the direction of the apothecary, than that he should understand sanitary construction for the direction of the plumber and the mason. He need not, of course, concern himself with the mechanical processes by which they do their work, but he should know the objects their work is to serve, and the efficiency with which these are secured.

The essential features of the subject relate to (1) the removal of fæcal matter by interior drainage pipes where water-closets are used within the house; (2) the management of out-of-door privies; (3) the condition of sewers where these are used; (4) the means of final disposal.

I. It is not necessary for our illustration to use, as is customary, the

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[1] Concluded from page 197.

aggravated example of a house in which the most glaring defects of drainage are obvious, — where traps have been omitted, where soil-pipes leak, and where an imperfect drain fills the cellar with sewer gas. This is only an exaggeration of difficulties which exist almost everywhere. It will serve our purpose almost equally well to consider a house of the very best class, where all the appliances for the removal of wastes are constructed in the most thorough and workman-like manner. As we have now to do only with the question of human excrement, we will leave out of consideration the deleterious effect of kitchen wastes, washing wastes, etc. We will assume, for the moment, that the house drain is so arranged as not to bring back into the house the foul air of the public sewer, and will confine our attention to the waste-pipes of the house itself, and to the dangers created within them by those fæcal matters which, *inter alia*, it is their office to remove. Beginning at the outer wall, we find an iron pipe with a depression known as a "trap" to prevent the return of currents of air from without. This pipe passes under a cemented cellar floor to a point near the interior of the building, thence it turns upward to a water-closet on the main floor, and thence continues to other closets on higher floors, the vertical direction usually being broken by longer or shorter lateral runs, according to the relative positions of closets on the different floors. It is made of heavy cast-iron, five or six inches in diameter, and its points are well secured with molten lead thoroughly and tightly caulked. The uppermost closet is attached to the top of this pipe by a four-inch lead pipe bent into the shape of the letter S. A similarly bent lead pipe connects the lower closets with oblique branches of the iron pipe. Other branches pass under the cellar floor to receive the wastes of kitchen and laundry. In communication with the water-closet on each floor is a bath-tub and stationary wash-basin, whose outlet pipes, running together and discharging as one, deliver into the water of the water-closet trap, the bent lead pipe. Variously scattered about the house are other wash-basins, in bedrooms or dressing-closets. In one or more cases there is a urinal, discharging in like manner. Just above the top of the iron pipe, branching out from the lead pipe with which the water-closet is connected, there rises a small lead pipe, which passes through the roof of the house to act as a "ventilator." Frequently the wastes of bath-tubs, basins, etc., deliver, not into the trap of the water-closets, but into the lead pipe beyond the trapping water, — practically into the iron pipe itself. In such cases some form of trap, usually an S-shaped bend, is placed under each vessel, with a view to preventing the air of the drain from gaining access to the apartments. The workmanship and material are of the best and most costly character, and everything has been done that the employer and his architectural adviser and mechanics have known how to do to make the whole perfectly safe.

Let us now examine the hidden processes going on within these pipes, and their probable effect upon the atmosphere which the occupants of the house have to breathe day and night. The quantity of water discharged and the frequency of the discharge insure the constant filling of the main trap near the outer wall, so that no current of air can enter from without. The pipe, from its too great size, inadequately flushed by the emptying of bath-tubs and basins, has the walls even of its vertical portions smeared with excrement. Its lateral courses, between the floors and under the cellar bottom, are still more fouled by the same material. The frequent introduction of warm water into this pipe raises its temperature and hastens decomposition. Every channel of ingress is closed against the entrance of air, and whatever fermenting principle the fæcal matters may contain, whether common or specific, carries on its development (its growth) without the accession of sufficient oxygen, and produces fermentative decomposition. The resultant gases filling the confined space overflow through the small pipe to the top of the house, preventing the entrance of fresh air through that channel, as the constant overflow of a fermenting beer barrel prevents the entrance of oxygen through its restricted bung-hole. Under the best circumstances the foulest of substances is rotting within the pipe, and filling its whole space with putrid gases. Under the worst conditions the specific infection of enteric fever and its congeners is adding to this confined atmosphere the reproductive organisms of its unlimited growth. Were this pipe-confined air absolutely excluded from our houses, we should be as safe as good workmanship and sound material could make us. But, unfortunately, the only barrier between our living-rooms and the interior of this pestiferous and poisonous retort is by, at best, a few inches of water in our traps. Traps are subject to emptying by the process known as "siphoning out," and this process acts at times in an unaccountable and capricious manner; so that we can never be quite sure that at some point our only feeble safeguard has not been withdrawn, leaving us exposed to an invasion of gases, which are constantly being produced and which are constantly seeking means of outlet.

What is still more serious is that these safeguards are feeble, — extremely feeble. Nothing has been more clearly demonstrated than the universal permeability of water by all gases. A basin of water left to stand in a stinking atmosphere soon becomes stinking water. Removed in this condition to a sweet-smelling room, it will soon taint its atmosphere. If any gas possessing recognizable chemical qualities is introduced into one end of a bent pipe, — the bend being filled with water, — the chemical reaction of the gas may soon be detected in the other limb of the pipe. This is not a matter of opinion, but of carefully-conducted and oft-repeated experiment. In the search for the source of a distinctive drain odor, it is often traced to an outlet which is separated from the drain by an undisturbed water-seal. This condition, it is to be remembered, is due entirely to what takes place within the house itself, and has no connection with an invasion of *sewer* gas.

Aside from the difficulties and dangers arising from the restricted decomposition in the soil-pipe, there is another very serious difficulty whose seat is in the trap of the water-closet. This trap is of such capacity that the usual flushing supply of the closet is insufficient to change its contents. The stream flowing over the bend of the trap is too small to carry over the solid fæces, and these remain until, by decomposition or maceration, they can pass over in solution or admixture in the limited flow. While they remain, they are constantly evolving foul and more or less dangerous gases, which escape from the trapping water into the house. What are known as "pan" closets — which are by far the most largely used — have a hidden chamber, shut off on the one side by the water of the trap, and on the other by the water of the pan, the walls of which are coated with an accumulation of fæces, decomposing in an unventilated atmosphere, and preparing for emission into the house, at each opening of the pan, gases similar to those produced in the soil-pipe itself.

Where bath-tub and other wastes discharge into the water-closet trap, the frequent introduction of warm water lends great activity to the decomposition of the contained fæces and urine, with a corresponding exhalation through the bath and basin wastes.

The foregoing is by no means a complete catalogue of the evils of our best accepted systems of house drainage, even so far as fæcal influences are concerned. The large quantity of other decomposable organic matter subjected to the same influences increases the danger. As we descend the scale, and come to houses built with an eye to economy, and still lower to those built with an eye to cheapness, and to those built years ago, when architects and plumbers were more ignorant than they are now, we see at every step increasing need for professional vigilance and effort.

It would be out of place to enter here into the details of the house drainer's art. The following indication of the manner in which the defects of this house may be practically remedied, without renewing the work, will show in a general way the controlling principles. The application of these principles varies, of course, with the varying circumstances of each case, and it is to be governed by considerations which need not be recounted here.

The first object to be secured is a free circulation of pure atmospheric air through the whole length of the pipe, by the admission of fresh air by a pipe connecting the lower end of the system inside the trap with the outer air, and by continuing the iron pipe, full bore, up through the roof with an open mouth exposed to the wind. This will supply oxygen for the better decomposition of the foul coating of the pipe, will dilute the gases as they are formed, and will carry them off into the atmosphere. It is often practicable to ventilate in like manner some of the longer lateral waste-pipes. The foul chamber of the "pan" closet may have its condition greatly mitigated by pipes connecting its upper and lower parts with the outer air. It should be stated, however, that no water-closet now exists which is free from grave objections. Water-seal traps, although they may be so arranged as to prevent the siphoning referred to above, are never to be trusted, no matter how thoroughly the main pipe may be ventilated, because the best possible ventilation cannot make its contained air fit to be breathed, and because the impurities of this air will pass freely through the water. There are various devices by which the water-seal may be covered and protected against contact with the air of the drain, and one of these should always be adopted. Should the question be raised as to the ability of the ferments of infection to be transmitted through the water, it may be answered that such transmission is not essential to their fatal effect, for the reason that the water of a trap usually contains sufficient organic matter in solution to harbor these ferments, set up a new growth, and produce a fresh crop, to escape at the house end of the trap.

If to the evils indicated above we add the items of sewer gas coming from the street and of pressure originating in the street sewer, we shall perhaps come to a realization of the serious character of our task.

II. The vast majority of habitations in this country have no interior drainage whatever beyond a waste-pipe leading from the kitchen sink. The excrement of their inhabitants is deposited, except in case of severe illness, in the vault of an out-of-door privy, where it exercises its mischievous *rôle* in quite a different way. Our civilization is too far advanced for it to be necessary to recite to persons of even ordinary intelligence the methods of its deleterious action, — beginning with the stifling air of its superincumbent apartment, and ending with its oozings through the soil to taint the water of wells. The voice of the whole sanitary world is unanimously in favor of its abolition.

Among the various substitutes for this relic of ignorant and barbarous days, none has been found to serve nearly so good a purpose as what is known as the dry closet, — a sufficient amount of sifted dry earth or of coal ashes, or of a mixture of the two, being used to cover the dejections, absorb their moisture, and bring them into close contact with the concentrated oxygen of a porous material. The use of portable vessels in all cases of serious illness is common where there are no interior water-closets, and no plan of absorption and disinfection has been devised at all comparable to the use of earth or ashes in these vessels. It is not too much to say that a proper and efficient adoption of this system in connection with vessels used in the sick-room suffices, as ample experience has demonstrated, entirely to prevent the spread of such diseases as find their means of transmission in the evacuations of the bowels.

III. Although of less consequence in its bearing upon health than the interior drainage of the house, the public sewer has an importance that can by no means be disregarded. It has been the custom to saddle it with the whole responsibility, and to consider the drainage of a house good or bad according to the degree to which it admitted or excluded the air of the sewer. A public sewer, holding the wash of many houses, is of course in itself worse than the single small drain of any one house ; but, in view of its extent, of the motion which its constant though small stream must give to its contained air, and of its many channels of communication with house drains, street gullies, man-holes, and outlets, it must have a less important influence upon any single house — supposing, of course, that all are equally guarded by traps — than has the soil-pipe of that house. At the same time, the difference is one of degree, not of kind, and the public sewer, as generally constructed, has all of the inherent disadvantages of a foul cess-pool, with the added drawback that its air space is subject to more frequent fluctuations, and that its temperature changes more frequently and more suddenly. Like the cess-pool and the soil-pipe, it is the seat of fæcal decomposition, going on without the admission of a sufficient volume of fresh air.

The condition of public sewers has long been discussed, and the discussion still progresses, with the promise of an ultimate effect upon public sentiment. Reformation — which must be radical and complete — must involve enormous public expenditure. While physicians may greatly aid in bringing about the much-desired change, and while they already realize the importance of exerting themselves in this direction, it is not to be disputed that their most efficient service is to be rendered in connection with the reformation of individual houses, and in the enlightenment of both architects and their clients as to what is required in new construction.

It seems almost trite to recite here the generally recognized statement that the sewer should be as little as possible a *receptacle*, and as much as possible a *means of conveyance*, for house drainage ; that whatever it receives it should pass on, — with no halting by the way, but with a continuous flow to its ultimate outlet. However completely this may be effected, there must still be a certain sliming and fouling of the walls of the sewer, and the matters thus adhering must be subject in such a temperature to constant decomposition. The condition is in all respects the same as that in the interior of the soil-pipe, and for the same reasons it needs the same constant circulation of fresh atmospheric air.

Concerning the cess-pools of single houses, or of groups of houses, all needed information is comprised in the single statement that they should be, everywhere and always, totally abolished. No cess-pool, whether so tight as to retain all that is delivered to it, or so porous as to leach away its liquid contents into the ground, can ever be, under any circumstances, a safe neighbor for an inhabited house.

IV. We have by no means averted the dangers which human excrement is capable of working when we have delivered it beyond the walls of the house or beyond the confines of the town. In either case we should, so far as possible, remove it to its ultimate point of delivery before it has had time even to begin its decomposition. But even then we have only changed its place, — we have not destroyed it; and while our danger has been lessened by distance, it has frequently been increased by accumulation.

The problem which now presents itself is one which has exercised the best engineering talent of the world, and no generally accepted solution has been reached. Two methods of ultimate disposal are accepted as satisfactory, but under many circumstances both are extremely difficult of application. One is the discharge into a great body of water, under circumstances which will surely prevent a return to the shore, by the action of eddies, currents, tides, or waves; the other is incorporation with aerated earth.

The first of these methods — discharge into the sea or into great lakes — has been and continues to be the subject of enlightened discussions, which are available to all interested in them. The second — incorporation with earth — has also been the subject of much study and experiment, but its features and conditions are less widely known. It comprises the whole range of processes, from the use of a quart of earth in a chamber vessel to the application of the whole sewage of a town to agricultural lands. In both cases the destructive agency upon which we rely is the concentrated oxygen which is crowded into the minute interstices of all porous material, and which is removed from the atmosphere as fast as it is taken up by the chemical processes of quick decay. If it is a question of disposing of the excreta of a single household, the application may best be made in the form of sifted dry earth at the source of production. If we are to consider also the disposal of other household wastes, including a large amount of liquid, then we shall require an area of ground equal to not less than two hundred square feet for each member of the family. The disposal in this case is effected through the medium of porous drains laid one foot or less below the surface of the ground, within reach of atmospheric influences, and, incidentally, within feeding range of the roots of plants. This method has been successfully adopted for the disposal in a single field of the sewage of one thousand persons. The degree to which it is capable of extension is a question of practice and of detail. The processes of intermittent surface irrigation, and, incidentally, for the fertilization of agricultural land, is susceptible of unlimited application, and although not always economical is always, under proper conditions as to soil drainage, entirely successful as a hygienic measure. A modification of this system, known as "intermittent downward filtration," secures the perfect accomplishment of the same result with a very much smaller ratio of land to population. In this process the soil is very thoroughly drained to a depth of six feet, with large pipes and copious outlets. The discharge upon the surface is very abundant, and the absorption and transmission are rapid. The permanent earth filter retains all organic impurities, the water being discharged at the outlet below as a potable and practically pure effluent.

In this latter case, as in all other methods of applying sewage to land, whether at the surface or through sub-surface irrigation drains, an intermittent supply is essential to success. A constant saturation soon leads to the fouling of the filter, to unwholesome interior decomposition, and to unpurified effluent. With a sufficient interval between periods of copious discharge, the oxidation of the retained impurities is carried to completion, and a purified filter is prepared for the next application. The infinitely minute division and distribution of the water-carried material makes the complete transformation a work of short duration. The mechanical and engineering appliances by which this system is carried out it would be out of place here to discuss; they have all been efficiently worked out, and have all been for years in regular and satisfactory operation. They constitute the only practicable alternative thus far devised to the usual system of discharge into the sea and into running streams, — a method which entails serious difficulties, which grow under our feet as we attempt to surmount them. How far disposal over or under the soil will be interfered with by the severity of our winters is perhaps not fully determined. It is known that even with surface irrigation the interference is much less than had been feared, and instances are common where, with an average depth of three feet of frost in the ground, the sub-surface irrigation pipes perform as well in winter as in summer.

In thus treating the question of sewage disposal, we have necessarily included all of the liquid wastes of the community; but their most serious and troublesome element is *human excreta*, which is our typical and by far most dangerous, as it is our most universal, product.

The attempt has been made in this essay to give, not so much a scientific statement of the theories concerning disease production through the agency of human excreta, of the pathological character of the diseases thus produced, and of the hygienic theories by which we are to account for successful methods of prevention, as a practical statement of the known facts connected with the subject, to indicate their bearings upon each other, and to use these in illustration and explanation of the methods which experience has shown to be effective in removing effect by the suppression of cause.

THE EVIDENCE OF STILL-BIRTH.[1]

BY MEDICAL EXAMINER S. W. ABBOTT, M. D.

HUMAN bodies come to the notice of the medical examiner at all periods of existence, from even the early stages of fœtal life down to old age. The transition from each of these so-called periods to the succeeding is, with one exception, so insensible and gradual as to be imperceptible. That exception is the stage of development which marks the passage from intra to extra uterine life. No preceding or subsequent stage of life is so sharply divided or so well defined as this. The sudden awakening of the human embryo to a new life in the outer world, attended as it is by a complete revolution in its condition, with the addition of respiration to its hitherto gradually acquired functions; the obliteration of old channels for the passage of vital fluids; the sudden and almost violent deprivation of its original blood supply by the division of the funis; the change from a uniform to a variable temperature, from a submerged life in fluid to one in air, — all these conditions render it a matter of wonder that so large a proportion survive the first moments of independent existence.

All still-births are in both a physical and in a legal sense deaths, and are so recognized by the State of Massachusetts in its official returns of cities and towns.[2] Of the forms of death which come to the notice of the medical examiner, the still-born and others occurring within the first week will necessarily form an important part,[3] and hence the question will often arise, "Was this infant born living or dead?"

In this connection, and in a consideration of the statutes, which are our rule of action, the question naturally arises, "What is, legally, a dead body?" The term *dead body of a person* occurs both in the old inquest law and in the new medical examiner law of 1877. But as no definition of the term *dead body* is given in the law, the interpretation must be somewhat at the discretion of each medical examiner.

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[1] Read at the February meeting of the Massachusetts Medico-Legal Society, 1879.

[2] Records of Massachusetts Medico-Legal Society, Corresponding Secretary.

[3] Autopsies of new-born children in Berlin constitute almost a fourth of all cases. Casper's Forensic Medicine, vol. iii.

So far as the dead bodies of fœtuses are concerned, even in the early stages of embryonic life, I know of no reason, under Massachusetts laws, why they should not *all* come under the cognizance of the medical examiner. Any attempt on our part to draw a line of distinction between the extremes of fœtal life would subject us to popular misapprehension, and make us guilty of the error of the British law, which established a distinction between the animate and the inanimate embryo,[1] a principle both morally and physiologically false. A fœtus is a person, a human being, physically, morally, and legally, and may inherit property, even during the earliest periods of embryonic life.[2]

While this is true, it is also necessary that any such child should be viable when born in order to *succeed* to an inheritance. Hence the question of viability may become a matter of vital importance in a given case, so far as inheritance is concerned, but under Massachusetts laws it cannot in any way affect the status of a case of fœticide or criminal abortion.

The examination of newly born infants requires a thorough knowledge of fœtal anatomy, and whenever an autopsy upon such a body is required it should be made with as much care and thoroughness as in the case of adults, certain organs requiring even more careful attention, as the lungs, heart, blood-vessels, stomach, colon, and funis.

How, then, may we know whether an infant has been born living or dead?

In many instances an autopsy will be imperative, provided other evidence, as that of an attending physician, is not at hand.

There are certain points in the *external inspection* of a new-born child which are of special importance in settling the question of its *maturity*, and this question of maturity may become the vital point at issue in a court of justice. It is therefore best to take note of every point, and while our decision may not be made up from any one alone, every item lends weight to the general result.

The following points, then, should be noted in the case of each new-born child found dead and coming to the notice of a medical examiner: —

Its *weight*. From such statistics as I have been able to collect, I find that the average weight of the new-born child at maturity is somewhat greater in the United States than it is in England and upon the continent of Europe.

Casper gives the weight of 247 cases as follows: —

Average weight, 247 infants	3309 grams.
Average weight of 130 males	3442 grams.
Average weight of 117 females	3192 grams.

The observations of Elsässer, Clark, Quetelet, Lecieux, and others give slight variations from these figures, none of them being quite as large as those of Casper.

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[1] Blackstone, vol. i., page 129.

[2] 15 Pickering's Reports, page 255.

Orth states the weight as 3300 for males, and 3250 for females.

The statistics of American-born children thus far obtained are meagre in the extreme. Dr. Burwell makes the following observation on 200 infants in the Philadelphia Hospital: —

100 males, average weight	3515 grams.
100 females, average weight	2961 grams.

Dr. Metcalf, of Mendon, gives the weight of 302 infants as follows: —

Average weight	3685 grams.
Average weight of males	3788 grams.
Average weight of females	3515 grams.

Through the kindness and assistance of members of the Middlesex East Medical Society I am enabled to give the weight of 203 infants born in that district: —

Average weight of 205 infants	3762 grams.
Average weight of males	3903 grams.
Average weight of females	3584 grams.

From various sources and not a very large aggregate of observations, I find an average for all classes in the United States to be about

3525 grams as an average for both sexes.
3650 grams as an average for males.
3400 grams as an average for females.

In London, from an average of 20,000 observations, Dr. Guy gives 3033 grams as the general average.

It is evident that the weight and also the length of new-born infants at maturity are influenced by various conditions, such as race, climate, and social standing. Most of the recorded statistics of foreign observers were compiled from observations made in maternity and lying-in hospitals in crowded cities, among a class of people considerably below the average social condition of the population at large.

The observations which I have quoted from Dr. Metcalf and the Middlesex East Medical Society were made in private practice in country and suburban villages, among a population of farmers, mechanics, laborers, and business men, representing a higher average class than the infants born in lying-in hospitals of large cities.

Length. The length of new-born infants at maturity presents but little variation. Caspar's measurements are: —

Average length of 247 infants	49.2 centimetres.
Average length of 130 males	51.8 centimetres.
Average length of 117 females	48.7 centimetres.

Dr. Burwell, of Philadelphia, gives the following: —

Average of 100 males	48.5 centimetres.
Average of 100 females	47.6 centimetres.

My own observations on this point are limited to seventeen mature infants, with this result: —

General average	49.9 centimetres.
Average of males	50⅓ centimetres.
Average of females	49 centimetres.

Here, then, is an open field of investigation, hitherto but little cultivated among American physicians, one which legitimately belongs to a medico-legal organization. Combining, as we do, the offices of obstetricians and medical examiners, scattered throughout the State, we are thus able to collect vital statistics, and to disseminate them through the medium of this society. Let me therefore earnestly recommend to you, as medical examiners, the habit of carefully observing these points, which at first thought appear of trivial and minor importance, but which the foremost forensic physicians of the Old World have carefully observed and recorded in thousands of cases. And I beg leave also to suggest that you take your observations, as soon after the birth as possible, upon the naked child. Your record will then have the merit of accuracy, and you will be spared the trouble of mentally subtracting the estimated weight of a mass of swaddling-bands and other paraphernalia to obtain the net weight of the child.

The *circumference of the thorax*, the *diameters of the cranium*, longitudinal, transverse, and oblique (occipito-mental), and the *size of the fontanelles* add weight to the former measurements.

The *condition and color of the skin* should be observed, whether firm or wrinkled, peeling in flakes, putrid, red, white, purple, or greenish. The scaling of the skin which takes place during the first few days after birth, usually beginning on the abdomen and spreading to other parts, is a vital phenomenon and a proof of live birth. It should be distinguished from the peeling produced by maceration.

Ecchymoses and post-mortem discolorations should be noted, and incised to determine the condition of the blood contained in them. The coverings or wrappings of the child, if any are present; marks of cords, bands, cloths, or violence of any sort; vernix caseosa, meconium, or fæcal stains, all require attention.

The following particulars are also worthy of note: —

The length and condition of the hair upon the scalp.

The condition of the eyes, absence or presence of the pupillary membrane. The condition of the eyeball, whether firm, flabby, opaque, or of a condition well described as buttery.

The condition of the cartilages of the nose and ears, and presence of foreign material in either, or in the cavity of the mouth.

The absence or presence of finger and toe nails, and their comparative length if present.

The condition of the scrotum, and position of the testicles in males and of the labia majora in females.

Of all *external conditions*, there is none more suggestive in its bearing upon one subject than that of the umbilical cord. Its absence or presence should be noted, and, if present, its condition of consistence, and whether it be desiccated or putrefied, moist or dry, cut or torn, tied or not tied, its length, and its coverings. If the funis is not present, the condition of the umbilicus, as to complete or incomplete cicatrization, suppuration, or hæmorrhage.

Various opinions have been held as to the desiccation or mummification of the cord in living infants. Some writers hold that it is a vital process. Doubtless, the separation of the cord at its proximal end, attended with suppuration and subsequent cicatrization of the umbilicus, is a vital process, but the vitality of any process beyond this point where circulation has ceased is a matter of doubt.

Billard states that desiccation is a vital process, and makes the following conclusions :[1] —

"(1.) Desiccation of the funis cannot take place except during life.

"(2.) At the period of death, desiccation is suspended or retarded.

"(3.) If the cord be fresh or shrinking, the infant may have been still-born, or have lived but a short time.

"(4.) If the cord has already exhibited the beginning of desiccation, or is completely dry, the infant has lived at least one day.

"In general, putrefaction of the cord does not begin till after the decomposition of other parts of the body, so that it is not found putrefied, unless the walls of the abdomen are green and all parts of the body are evidently in a state of putrefaction.

"The separation of the cord is by suppuration, or a process similar to that by which the stem of some fruits is separated."

Heat and moisture play an important part in the changes of the cord, whether upon the living or the dead infant. The influence of the temperature of the living infant upon the cord is a matter which, though neglected by most observers in forensic medicine, is worthy of notice. This temperature (37° C.) is much above that of the average temperature in which dead infants are usually found, except in hot summer days and in hot climates. The condition of the cord of dead infants varies with the surrounding temperature and other conditions. The bodies of such infants are found in all sorts of conditions : in solid, fluid, and semifluid media, in hot and cold weather, frozen or thawed, in the earth and out of it. The cord of a child which has been floating in a stream for several days in November will not present the same appearances as one which has been left dry for several days in an open pasture in a July sun.

For the purpose of noting some of these changes, I selected six pieces from a fresh umbilical cord on the 26th of December last. This cord was of an average size. The pieces were of equal length, six centi-

[1] Traité des Maladies des Enfants, chapter on Umbilical Cord.

metres, and each weighed five and one third grams. They were exposed as follows: —

Three were laid in shallow capsules, and exposed in a dry condition, and marked *a*, *b*, and *c*.

Three were placed in open glasses filled with water, and marked *d*, *e*, and *f*.

A and *d* were kept at a temperature averaging about 0° C., *d* being occasionally covered with a film of ice; *d* and *e* were kept at an average temperature of 15° to 17° C.; *c* and *f* were kept at an average temperature of 37° to 39° C., a little above that of the human body.

(*a.*) At the end of forty-eight hours slight shrinking of size was first noticed in *a*. In seventy-two hours it had shrunk one fourth its size, and showed signs of desiccation. At the end of the first week it had shrunk two thirds of its size. At the end of the second week its weight was only forty-three centigrams, one thirteenth of its original size, and was dry, hard, odorless, translucent, and showing the tortuous course of the umbilical vessels with hardened blood in them. This appearance it still retains.

(*b.*) Shrinking was noticed in *b* in thirty hours, desiccation also during the second day, and at the end of the first week it had dried and assumed the same appearance which *a* showed at the end of two weeks, its weight then and now being forty-five centigrams.

(*c.*) Shrinking was first noticed in *c* at the end of ten hours, and in forty-eight hours desiccation was completed, it having then assumed its present size and weight of forty-six centigrams.

(*d.*) At the end of twelve hours *d* had swollen a little in size by imbibition of water. Its color was unchanged. A thin film of ice had formed over it. It was odorless, and remained so at the end of four weeks, still retaining the same appearance as at the end of twelve hours. There was no discoloration of the water.

(*e.*) The fragment marked *e* had swollen like *d* in twelve hours. There was an odor of putrescence at the end of the fourth day, and the water had become discolored with blood. This cord has retained its shape up to the present time, and the blood-vessels can still be seen at the ends of the cord. A pellicle of mold had formed over the water, containing organic *débris* and abundant infusoria. A stream of fresh water directed forcibly against this cord did not affect its shape at the end of four weeks.

(*f.*) A putrescent odor was decidedly manifest in *f* at the end of twelve hours, and the water was also discolored with blood. At the end of two weeks its shape was still unchanged. In three weeks the gelatinous envelope had fallen away from the blood-vessels, leaving them like long strings. In four weeks the whole mass was disorganized, leaving only a few bits of blood-vessels here and there retaining their original shape.

(To be continued.)

TWO CASES ILLUSTRATIVE OF TWO IMPORTANT POINTS IN ELECTRO-THERAPEUTICS.[1]

BY A. D. ROCKWELL, M. D., OF NEW YORK,

Electro-Therapeutist of the New York State Woman's Hospital, Member of the American Neurological Association, etc.

THESE cases are neither novel nor unusually interesting, so far as the symptoms of disease alone are concerned. I present them because they illustrate two very important points in therapeutics, especially electro-therapeutics, namely, the necessity for, and the good results that come from, perseverance in seemingly hopeless cases of infantile paralysis, and furnish a suggestion in regard to the differential indications for the use of galvanism and faradism in the relief of pain.

CASE I. I call attention first to this little boy, aged four, sent to me by Dr. S. H. McIlroy, of this city.

In September, 1877, the patient suffered from a severe attack of chills and fever, followed by convulsive seizures. One week subsequently the right leg was found to be completely paralyzed, the other limbs, with the exception of the left arm, being also affected, but in a less degree. In March, 1878, six months later, the case came under my care. The leg was apparently without life, quite cold, and atrophied to the last degree, while the electro-muscular contractility was completely abolished, and probably had been for some time. After a month's treatment by general faradization and localized galvanization, the general condition had somewhat improved, but there was not the slightest evidence of returning galvano-muscular contractility. In two weeks more, however, contractions, almost imperceptible, were observed. These increased very slowly, and it was six months before the muscles responded in the least degree to faradization. At the present time, after a year of the most persistent endeavor, the contractions are considerable, the limb has increased much in size, its circulation is good, and the child can, with the aid of a chair, move about quite readily. I conceive it to be self-evident that if this patient had not been treated with unusual persistency, or if active measures had been delayed much longer, a condition of life-long helplessness would have followed.

In consideration of the *absolute and long-continued paralysis and loss of electric response to either current*, the results have impressed me deeply, and should teach that even desperate cases of infantile paralysis should not be hastily abandoned to their fate.

CASE II. The second case, Mr. C., aged forty, was sent to me by Dr. Malcolm McLean, of this city, with the following history: Last Christmas, without knowledge of special exposure, but subsequent to much mental depression, the patient began to suffer from extreme pain in the lower part of the back and in the hip. A week later, the pain extended down the leg to the ankle, along the course of the sciatic nerve. The pain, instead of being sharp and shooting, was of a dull, aching character, and though at all times severe, yet frequent exacerbations occurred, rendering him quite helpless. After various methods of treatment, he attended a clinique at the College of Physicians and Surgeons, and submitted to cauterization of the limb, but with no good results. When I saw the patient, two weeks since, he had been suffering six months with no relief, and latterly the symptoms had increased in severity.

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[1] Presented before the American Neurological Association, June, 1879.

On examination I found that firm and prolonged pressure did not *increase* the pain, but afforded, rather, decided relief. On the contrary, slight pressure caused all along the posterior aspect of the thigh *very intense* pain. I was well aware of the probable indications for treatment, but in order to test the case thoroughly I made a careful labile application of the galvanic current, with no good effect certainly, but rather with some increase of pain.

Two days subsequently I resorted to faradization, placing both feet of the patient, that belonging to the sound as well as to the diseased leg, on the negative pole, and using an exceedingly fine current, avoiding all motor points, and carefully refraining from producing appreciable muscular contractions. The patient has been thus treated but three times, and is, as you observe, nearly well.

The points of this case that I wish particularly to emphasize are these: First, that in differentiating between the use of the two currents for the relief of pain the effects of pressure are most useful guides. Second, that while true neuralgia, as defined by Anstie, and pain generally, yields, as a rule, more readily to the galvanic than to the faradic current, the latter is in some cases not only invaluable, but relieves where galvanism is worse than useless, since it serves only to exaggerate the existing distress. Hysterical neuralgias and the so-called pseudo neuralgias, which are simply forms of pain, occupying certain areas, and running, seemingly, in the direction of certain nerves, undoubtedly indicate the faradic current. In these cases it is well known that firm pressure tends to relieve, while light touches aggravate, the distress. This suggestion in regard to the effects of pressure in neuralgia as indicating the proper electrical treatment I have offered before, and have tested it very satisfactorily in many cases. While I do not enunciate it as an unvarying law, it will certainly be found exceedingly useful as a guiding symptom, and the above case of sciatica is, perhaps, as striking an example of its truth as any I have met with.

RECENT PROGRESS IN MEDICAL CHEMISTRY.

BY WILLIAM B. HILLS, M. D.

TOXICOLOGY.

Antidote for Phosphorus.[1] — Two French physicians claim to have discovered in the slow injection of oxygen into the veins a successful antidote to poisoning by phosphorus. Its action is as follows. Phosphorus has a great affinity for oxygen. When, therefore, it is absorbed into the system its injurious effects are due to the fact that it unites with the oxygen of the tissues, thus producing its dangerous results. If, however, oxygen is introduced into the veins the phosphorus is thereby oxidized, and prevented from depriving the tissues of their oxygen.

Iodide of Starch as an Antidote.[2] — Dr. Bellini, in a paper read before the Medical Society of Florence, recommends the iodide of starch as an antidote to poisons generally. It is free from any disagreeable taste, and has not the irritating properties of iodine, so that it can be administered in large doses. He has made numerous experiments, and states, as a result of these, that at the temperature of the stomach and in the presence of the gastric juice the iodide combines with many of the poisons, forming in some cases insoluble compounds, in others soluble compounds, which are harmless so long as they are not in too large quantity. He recommends it as safe in all cases where the nature of the poison is unknown, and as especially efficient in cases of poisoning by sulphureted hydrogen, by the alkaloids and alkaline sulphides, by caustic alkalies, by ammonia, and especially by those alkaloids with which iodine forms insoluble compounds. In cases of poisoning by salts of lead and mercury it aids the elimination of these compounds. In cases of acute poisoning an emetic should be employed soon after its administration.

Carbolic Acid. — Drs. Langenbuch[3] and Sonnenburg[4] have referred to the dangerous results that are liable to follow the use of carbolic acid in antiseptic surgery. It is in the case of children especially that danger is to be apprehended. According to Sonnenburg, adults suffer chiefly from nausea, vomiting, and headache; while in the case of children there is collapse, often preceded by restlessness and excitement. During the stage of collapse the temperature in children may fall to 34° Cent. In the lighter grades of poisoning, and preceding the stage of collapse, there may be a rise of temperature to 39° Cent. Sometimes these conditions end in death. In these cases the examination of the urine is very important, in that it enables one to determine whether carbolic acid poisoning is setting in or not. Baumann[1] has shown that a disappearance of the sulphates from the urine goes hand in hand with the development of the symptoms of carbolic acid poisoning, while the quantity of associated sulphuric acid (*gepaarte Schwefelsaüre*) is at the same time increased. When the poisonous symptoms reach their height the sulphates will be found to have disappeared entirely. (For the tests for the salts of sulphuric acid and associated sulphuric acid see the JOURNAL, January 4, 1877, page 14.) Baumann has further shown that, if sulphate of soda is administered to an animal suffering from symptoms of poisoning by carbolic acid, a non-poisonous phenol-sulphuric acid is produced, so that sulphate of soda or any soluble sulphate is a direct chemical antidote to carbolic acid. Sonnenburg gives a list of cases in which symptoms of poisoning followed the use of carbolic acid, and in which the sulphate of soda was administered. In some of these cases the grade of poisoning was so high that the urine had the dark color characteristic of this form of poisoning, and the sulphates were entirely wanting. The general result of the treatment was that the bad symptoms disappeared, the urine became normal, and it was possible in most cases to continue the dressings as before. The dose which he recommends is, for adults, a tablespoonful each half hour of a solution containing five parts of the sulphate of soda in one to two hundred parts of water; for children, the same amount of a solution containing four parts in two hundred. Lately, Dr. Sonnenburg[2] has made the discovery that in these cases of poisoning repeated dressings with a five per cent. solution of sulphate of soda are a very efficient antidote. The urine, which at first is of a dark green color, with a slight brown tinge, soon assumes a normal color, when the dressings with carbolic acid may be resumed without danger.

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[1] The Canada Lancet, vol. xi., No. 6, 1879, page 184.

[2] The London Medical Record, February 15th, page 81.

[3] Berliner klin. Woch., No. 28, 1878, page 412.

[4] Deutsche Zeit. für Chir., vol. ix. page 356.

Hydrocyanic Acid. — Cases of poisoning by hydrocyanic acid, where the acid resulted from the decomposition of a ferrocyanide in the body, are quite rare, two or three cases only being on record. Dr. Volz, of Ulm, relates a case[3] where the hydrocyanic acid was produced by the action of hydrochloric acid on the ferrocyanide. The body was examined forty hours after death. The post-mortem appearances were essentially those produced by the local action of the hydrochloric acid, though death was without doubt caused by the hydrocyanic acid. Hydrocyanic acid was readily obtained from the stomach by chemical analysis, and the residue after distillation was found to contain ferrocyanide of potassium.

Atropia Poisoning successfully Treated with Morphia. — C. G. Polk,

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[1] Maly's Jahresbericht, 1876, page 60, from Ber. deutsche chem. Gesellschaft, ix. 1, s. 54.

[2] The London Medical Record, May 15, 1879, page 184, from Med.-Chir. Centralbl., March 21, 1879.

[3] The London Medical Record, February 15, 1879, page 79, from the Vierteljahrsschrift für gericht. Medicin.

M. D.,[1] reports the case. The patient was fifty years old. When first seen, the pupils were widely dilated, breathing stertorous, sensibility almost lost, coma profound. The stomach-pump could not be used on account of his condition. Four grains of the acetate of morphia were injected into his arm, and a solution of tannin prescribed. Two hours later one half grain of the sulphate of morphia every half hour was ordered. Four hours later the breathing was much improved; pulse full, though slow and soft, not exceeding 50 per minute. Two grains of the sulphate of morphia were injected into the arm at this time. The next morning the patient was well. The total amount of morphia taken by the patient was ten grains.

Corrosive Sublimate. — Dr. Kobryner[2] reports a case of poisoning from one third of a grain of corrosive sublimate. A young man of twenty-one, under treatment for syphilis, took without sanction two corrosive sublimate pills, containing one sixth of a grain each. A little later he was taken with intolerable burning pain in the stomach and abdomen, and vomiting. His pulse became small, his extremities cold, and face pinched. There was no salivation. He was given iron by hydrogen (which was not retained) and albumen. The symptoms continued for ten hours, then began to diminish, the patient finally recovering. This case is interesting on account of the small amount of the poison which gave rise to the symptoms.

Salicylic Acid. — Dr. Feltz[3] reports the poisoning of a man who took two hundred grams of salicylate of sodium in one month. He took four grams three times daily for seven days; then increased the dose to six grams, and in the last seventeen days to eight grams, three times daily. The symptoms were chiefly frequent vomiting and repeated attacks of very painful headache, preceded by reddening of the neck, face, and head. The pupils were contracted. The symptoms continued for seventeen days after the last dose had been taken. The acid could be detected in the urine for sixteen days. J. W. Compton, M. D., in an article on the Poisonous Effects of Salicylic Acid,[4] gives brief abstracts of a considerable number of cases where dangerous symptoms, and even death, have resulted from the rash administration of this remedy.

Paul Cazeneuve[5] has investigated the subject of poisoning by salicylic acid and salicylate of sodium. According to him, dangerous symptoms may be produced by the acid in doses of twenty grams. It may be readily detected in the urine by chemical analysis. Cazeneuve recommends the following process for its detection, as being simple and exact in its results, and applicable when the quantity of acid is very small. It may be employed not only on the urine and other animal fluids, but on any liquid which may contain the acid. One hundred c.c. of the liquid are evaporated to ten c.c. with the addition of one c.c. hydrochloric acid (to decompose the salicylate of sodium) and thirty grams plaster (*plâtre*). The residue, finely divided by reason of the plaster, is exhausted with chloroform. The chloroform is separated by distillation, and the residue taken up with boiling water. Pass, while hot, through a moistened filter. The acid, if in sufficient quantity, separates from the aqueous solution upon cooling. It is now pure enough to be weighed. If the acid is in too small quantity to crystallize from the hot aqueous solution, its presence may always be made evident by the violet band obtained by carefully pouring upon the suspected liquid a solution of perchloride of iron. In this process the plaster retains the coloring matter of the urine as well as other animal coloring matters. Even if the chloroform withdraws a small amount of coloring matter, it is left behind when the chloroform residue is treated with water.

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[1] The Virginia Medical Monthly, July, 1879, page 304.

[2] The Philadelphia Medical Times, November 9, 1878, page 60, from Bull. gén. de Therap., vol. ii., 1878, page 75.

[3] American Journal of Pharmacy, March, 1879, page 129, from Ap. Ztg., December 14, 1878, page 205.

[4] The St. Louis Medical and Surgical Journal, August, 1878, page 80.

[5] Journal de Pharm. et de Chimie, March, 1879, page 221.

A Poisonous Crystalline Alkaloid from the Body. — M. Selmi[1] reports the isolation of a poisonous crystalline alkaloid from the viscera of two exhumed bodies. The first body had been buried twenty days, was well preserved, and contained a considerable quantity of arsenic. In examining for the alkaloids he obtained, by means of ether, from the extract made alkaline with baryta a small quantity of an alkaloid. This, after purification, had an alkaline reaction, a pungent, slightly bitter taste, and crystallized readily in needles. Its salts were also crystalline. It reacted like the alkaloids. With sulphuric acid it gave a reddish color; with iodic acid and sulphuric acid a liberation of iodine and a violet color; with nitric acid it was colored yellow.

A short time after, M. Selmi extracted from another body a larger quantity of a crystalline product, also presenting an alkaline reaction. This alkaloid was separated by concentrating *in vacuo* the alcoholic extract to seventy cubic centimetres at 35° to 45° C., treating with baryta and ether, evaporating off the ether, taking up the ether residue with water acidulated with acetic acid, filtering, evaporating to dryness, again taking up with water, and treating with baryta and ether. The ether residue contained the alkaloid almost colorless. This alkaloid gave a white precipitate with tannic acid, a brown one with iodine in hydriodic acid, a white one with corrosive sublimate, and a yellow one with picric acid. It formed with acids crystalline salts, and gave with platinic chloride yellow crystals. This alkaloid produced in a frog very marked poisonous effects, similar to those caused by "*ptomaines*" of a poisonous nature.

(*To be concluded.*)

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[1] Journal de Pharm. et de Chimie, February, 1879, page 156.

REPORT OF THE MIDDLESEX EAST DISTRICT MEDICAL SOCIETY FOR 1878.

F. WINSOR, M. D., REPORTER.

THE Middlesex East District Society has held monthly meetings during the past year, as during several previous years. At two of these meetings addresses have been given by physicians from outside the district; but as the same lectures have been listened to by other medical societies, whose members are also members of the state society, any further mention of them seems foreign to the purpose of a district report.

From the many papers, reports of cases, and discussions, the reporter selects and summarizes the following: —

Drunkenness in Parents. — DR. F. F. BROWN, of Wakefield, read a paper on the connection between drunkenness in parents and disease in their children, which was very suggestive, and elicited much discussion. Circulars had previously been sent to members, inquiring what had been their experience: (1.) As to intemperance in parents tending to implant marked appetite for alcohol in their children. (2.) As to intemperance in parents tending to produce disease in their children by heredity, apart from the influences of privation and exposure, to which such children are peculiarly liable. (3.) As to the effect on nurslings of the use of malt or stronger liquors by their nurses. It was the general opinion that the children of intemperate parents inherit an unusual appetite for intoxicating liquors and drugs, and a number of members gave instances in their own experience sustaining this opinion. The experience of members also furnished many instances corroborating the impression that the children of drunken parents are peculiarly liable to hereditary disease, especially to the neuroses running from neuralgia to idiocy. The question was raised whether appetite for alcohol may not be an evidence of this neurotic taint in one generation, which in a later generation manifests itself in chorea or insanity, instead of drunkenness being the origin of all.

Several gentlemen related independent cases of large families, the parents of which were intemperate during a portion only of their married lives, where the mental and bodily condition of the successive children improved or deteriorated, *pari passu*, with the habits of the parents. And furthermore, this was sometimes observed in families whose pecuniary circumstances were independent of the habits of the parents, so that the offspring of the drunken portion of the married life could not have suffered from privation or exposure.

The limited experience of the members present corresponded with the large experience of specialists, from whom Dr. F. F. Brown quoted in his paper. But the essayist stated that he is satisfied that there are as yet no data from which it is possible to determine how strong the heredity in question is. From the statistics of asylums and almshouses, it may be proximately calculated how many insane or idiotic inmates had drunken parents; but we have no means of showing what per cent. of the children of drunkards are of unsound or feeble mind.

Iliac Inflammation in a Male. — DR. W. S. BROWN reported a case of inflammation in the right iliac inguinal region in a man, which was followed by extensive sloughing, extending to the scrotum and laying bare both testicles. The external inflammation was supposed to arise from perityphlitis. The patient recovered, and is now at active labor. To expedite the process of repair in the denuded regions, five hundred skin-grafts were employed.

The same gentleman read an interesting paper on Ovariotomy, which was printed in the JOURNAL for January 9, 1879.

Opium Habit. — DR. S. W. ABBOTT, of Wakefield, made a report on So-Called Antidotes to the Opium Habit, showing that these extensively advertised nostrums all contain opium in some form, and are certain to confirm the habit which they promise to cure. Chemical analysis fully sustains the charge made by *each* of these nostrum venders against all his fellows, namely, that the so-called "opium cures" contain opium in very large quantities, and are the most mischievous class of quack medicines. This paper was a prosecution of the work begun a few years ago by the Cumberland Medical Society of Maine. It adds seven more names to the list of impostors published by them, and it is to be hoped that Dr. Abbott will extend it still further, and lay the result of his work before our state society.

Turning versus the Long Forceps was discussed at length one evening, three gentlemen giving their experience in a number of cases where turning was successful after the forceps had completely failed to deliver, or with patients whose previous labors had with difficulty been terminated by forceps. They incline to the opinion that it is not only easier and safer for the mother than the long forceps, but quite as safe for the child. Most members present were in the habit of using forceps in all head presentations where nature failed to bring down the head, and were not ready to admit that turning can be more successful. The discussion was animated. The advocates of turning maintained that it can be done earlier, which was admitted, — no member approving of the application of the forceps when the head is at the brim and the os less than half dilated; that it allows the head to adapt itself to the irregularities of the pelvis better than is possible when it is held in the forceps; that with proper manipulation no dangerous traction need be made on the child's neck. It was with regard to this last point, and also on the question of compression of the cord in delivering by the lower extremities, that issue was most strongly taken. One of the advocates of turning gave the authorities in its favor, as furnished by *Braithwaite's Retrospect* for twenty years (Simpson, Braxton Hicks, Barnes, and others, and especially, and to an unqualified degree, Figg, in 1859). These writers claim for turning, in cases where the head is arrested at the brim, the following advantages over the forceps, in addition to those already enumerated, namely: turning gives the best means of determining whether the disproportion of the head to the pelvis is so great as to demand craniotomy; and it gives the best chance for craniotomy, if that operation prove inevitable. No member had fairly tried bimanual version, as recommended by Braxton Hicks.

Though such a discussion makes no immediate converts, it is certain to lead to a more extended trial of the method of the minority, with that result most to be desired in medical practice, — a wider experience from a greater number of independent observers.

Placenta Prævia; Twins. — DR. J. M. HARLOW, of Woburn, reported a case of placenta prævia, with twins, where the mother and both children were saved. The patient, a multipara, about a fortnight before full term, awoke to find herself flowing, without any "pains." Examination found the os undilated, but detected above it a pulpy mass. She was kept in bed for a week without further hæmorrhage, but on the eighth day awoke, flowing severely. The os was then found dilated to the size of half a dollar, and occupied by the placenta, so that no presentation could be made out. Bleeding being no longer free, further dilatation was awaited. In four hours the os was sufficiently open to allow the head to be felt. The membranes were then ruptured. Bleeding was slight, but no pains occurred for half an hour. Then they came frequently and regularly, and in due time a boy weighing six and a half pounds was delivered. The funis was very short, and on examining for the placenta it was detected, as Dr. Harlow at first supposed, in the vagina; but he very soon found that it did not belong to the child he had delivered. It was, however, shortly followed by another placenta; and then the breech of a second child presenting, he delivered it alive, though *ten minutes after its placenta.* It was a female, weighing five pounds. Dr. Harlow judged, from the appearance of its placenta, that about one quarter of it had been detached at the time of the first hæmorrhage, eight days before delivery.

As the bleeding was not alarming, this case was left to mature up to the point when the membranes could be ruptured without disturbing the placenta.

In the discussion which followed the report of this case, it appeared that in four cases of central implantatia of the placenta, which had occurred in the practice of gentlemen present, two had been fatal to the mother. Of a number of cases of partial placenta prævia, about one half had been fatal to the child, and none to the mother. It was the general opinion that, unless the bleeding is so great as to threaten the mother's life, cases of placenta prævia should be left to rest and nature, till the os is sufficiently dilated to allow of rupturing the membranes. Barnes's plan of separating successive zones of placenta did not commend itself to the judgment of any member.

Plaster-of-Paris Jacket. — DR. A. H. COWDREY, of Stoneham, applied a plaster-of-Paris "jacket" to a child with antero-posterior curvature of the spine; and at the same time showed a "jacket" removed from the same patient because he had outgrown it after several months' wear, during which time he had greatly improved.

Enteric Fever. — DR. F. WINSOR reported a fatal case of enteric fever, in which a portion of the rose-spots pursued the normal course, while others persisted, became indurated and acuminated, and somewhat resembled the eruption of acne, a peculiarity mentioned by Roberts, but not by most of the authorities. There was no diarrhœa in this case. Careful examination of the premises, and inquiries into possible exposure of the patient to typhoid poisoning elsewhere than at home, negatived the supposition of the disease having been acquired in the usual way by the alimentary canal. There was, however, clear evidence of exposure morning after morning to cess-pool gas through an untrapped sink in the kitchen, where the patient made the fire and cooked breakfast. In the discussion which followed, the question was raised whether the case was not one of those which an English authority has recently named "sewer-gas fever" rather than typhoid.

Two very instructive cases, — one of tumor of the brain, the other of chronic ulcer of the duodenum, — reported by Dr. J. M. HARLOW, who also showed the post-mortem specimens, have already appeared in the JOURNAL.

JEFFRIES ON COLOR-BLINDNESS.[1]

THOUGH nearly ninety years ago the English chemist, Dalton, gave an accurate description of the defect which for a long time bore his name, though others from time to time investigated and wrote on color-blindness, and devised means for detecting the anomaly, until the past few years it was very generally regarded so exceptional as to offer rather a scientific than a practical interest. Indeed, it may be said to be only since the publication of Holmgren's book, in 1877, that its frequency and the practical importance of its recognition have been fairly appreciated even by those who might be expected to be specially informed. Holmgren so modified a method for its detection, proposed by Seebeck forty years before, that it became possible to examine large numbers of persons with small risk of error and little expenditure of time. He moreover presented evidence that in Sweden, at least, a considerable per cent. of the male population are color-blind. The numerous papers on the subject that have since appeared, and the extensive statistics that have been collected, chiefly on the continent of Europe, indicate how great an interest was awakened by this publication. An equally large percentage of color-blindness with that found in Sweden has also been discovered to exist in several other parts of Europe, and, through the investigations of Dr. Jeffries, in America.

In the book before us Dr. Jeffries has given a full and accurate account, written for the general public as well as the medical profession, of the present state of our knowledge in this direction. Cases illustrating the mistakes made by the color-blind are given, and a chapter is devoted to explaining the classification according to the Yomag-Helmholtz theory. The fact that color-blindness may be caused by diseases or injury, and especially by the misuse of alcohol and tobacco, is referred to. Interesting examples are related of hereditary transmission, and the tendency sometimes manifested by this, as by other hereditary peculiarities, to skip over one generation and reappear in the next. It is proven by numerous statistics gathered from many countries that in general terms one of every twenty-five males is blind for red or green, while the very small proportion of females thus affected presents a striking contrast.

The dangers on railroads and the ocean from color-blindness are strongly, but not too strongly, insisted on; the impracticability of changing the signals now universally adopted so as to avoid these dangers is shown; the necessity for the employment of proper means to discover the defect and the fallacies which may attend the use of inefficient methods are demonstrated. Of all tests as yet proposed, the author, in agreement with most of those who have had practical experience in the matter, regards that of Holmgren as best combining the requisites of simplicity, convenience, and accuracy, and copious extracts from Holmgren are presented to explain the principle of this test and the manner of its employment. If the book help to stimulate railroad managers to follow the example set by several of the European governments, and institute a thorough examination of the color sense of their employees, it will have accomplished a good work. It is encouraging to learn that such examination has already been ordered by one of the largest railroad corporations in the country.

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[1] *Color-Blindness: Its Dangers and its Detection.* By B. JOY JEFFRIES, A. M., M. D. (Harvard), Fellow of the Massachusetts Medical Society; Ophthalmic Surgeon Massachusetts Charitable Eye and Ear Infirmary, Carney Hospital, and New England Hospital for Women and Children; Member of the International Periodic Congress of Ophthalmology, American Ophthalmological Society, Boston Society of Medical Sciences, Boston Society for Medical Observation, Boston Society of Natural History, etc. Boston: Houghton, Osgood & Co. 1879. 8vo. Pp. 312.

EDUCATION OF GIRLS.[1]

Dr. Allen, in this paper, touches upon matters of extreme importance, and his conclusions and advice are such as meet with our hearty concurrence. While admitting the desirability of a thorough education for girls, he laments the loss of those opportunities for physical exercise which were open to all, and were employed by most, in a generation preceding our own. "Once it was customary for the girls in our New England families to do much domestic labor, commencing quite early in life. They were trained up to it, year after year. Some part of this labor was hard, and its performance made a severe tax upon the muscles. In this way the constitution of girls became strong and vigorous, capable of much endurance. Besides, schools were formerly continued only about half the year, and then, in the intermediate time, girls found an abundance of exercise in work. One of the most unfortunate events or sentiments that ever befell any people was the change in feeling and opinion that came over our New England women in regarding domestic work as menial and degrading. Had this notion been confined to hired service — for that only which received regular pay — this injury would not have been so great. But the notion or sentiment has gradually been taking possession of the minds of our New England women, especially girls, that domestic labor, wherever performed, is degrading, is not fashionable, and that any other kind of work or business is preferable."

Those who are interested in the health of the rising generation will generally agree with the above opinions. It is, of course, eminently important that our schools, grinding as they do (and will continue to do) forty weeks in the year, should be made thoroughly wholesome places to live in. It is, however, only too palpable that more harm comes from unreasonable and unwholesome customs of living within the control of parents than from anything that is done inside of the school. And, moreover, if the school claims too many hours and days of the pupils, — time which ought to be devoted to *growing*, — it is pertinent to remark that the claim is thus made in answer to a public sentiment which requires it. *We* are responsible for this, and not (God save us!) the poor, gasping school-teachers.

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[1] *Education of Girls, connected with Growth and Physical Development.* By Nathan Allen, M. D., Lowell, Mass. Read before the American Institute of Teachers, July 10, 1879.

But from both sides of the question it appears to many thoughtful persons that the work the schools do is but a half-way operation. In respect to mental development, we will not stop to speak at large of the results of modern schooling; our readers are familiar with the complaints of "acquisition forcing education into the background." In respect to physical development, we hope the doctor's protests and claims may have the force they deserve. Especially do we hope that they may result in influencing those who *set the fashion.* This done, the whole work will be done.

POOLE'S PHYSIOLOGICAL THERAPEUTICS.[1]

This book represents the work of a compiler, and shows marks of very careful study and well-considered deductions. Dr. Poole here seeks to explain the action of remedies from a physiological stand-point: for instance, one of the main supports of his theory is that of the "inherent and independent contractile power of muscular tissue." This, he asserts boldly, has long found a place in medical literature, and quotes from many standard authorities on physiology to prove that most of these writers have admitted this fact in nature. Our author states that he would simply extend the doctrines which have been freely accepted and taught by leading physiologists, and apply these to the action of drugs. Next he calls attention to the influence of the nervous system in regulating or restraining muscular contractile power, and especially insists that this influence is restrictive and not initiatory. We cannot within reasonable limits do justice to the author's views, which he has given in a very condensed form, and supports with numerous quotations. It is sufficient to state that the theory is one well worthy of a perusal, and withal quite interesting. If we are to admit the truth of the present knowledge of physiology, the theory that he seeks to establish leads the way to a rational system of therapeutics.

ROSENTHAL ON DISEASES OF THE NERVOUS SYSTEM.[2]

We are pleased to see an English translation of Professor Rosenthal's excellent book, and especially in a form which must place it within the student's reach.

The original work, in its later editions, has long been recognized as an intelligent, sensible, and comprehensive, even though not a masterly, treatise, and great as has been the flood of books, large and small, upon this subject, within the past few years, there has been none which, from its size and the excellence of its matter, has been better adapted for the use of students and general practitioners.

[1] *Physiological Therapeutics: A New Theory.* By Thomas W. Poole, M. D., M. C. P. S. Ontario, Toronto. Published by the Toronto News Company.

[2] *A Clinical Treatise on the Diseases of the Nervous System.* By M. Rosenthal, Professor of Diseases of the Nervous System at Vienna. Translated by L. Putzel, M. D., Physician to the Class for Nervous Diseases Bellevue Hospital, etc., etc. New York: Wm. Wood & Co. Pp. 271.

Professor Charcot, of Paris, has thought well enough of it to welcome the French translation with a friendly and discriminating preface, which is translated with the present volume. The book is not such pleasant reading as that of Professor Wilks, of London, but it is a better compendium, and the student who has the two will be, for the present, well equipped.

We are also pleased to be able to praise the work of the translator, though we cannot do this without a reservation. His ability and intention to translate well are shown by the general clearness and smoothness of his style. Yet Germanisms and slightly awkward sentences crop out on almost every page. It is a pity that a good job should be blemished by want of care at the moment of its completion, or that writers of medical English should assume that their readers have only a scientific, not a literary sense. We cannot fairly accuse Dr. Putzel of this last fault, however, for with one more revision his translation would have been excellent. J. J. P.

FARQUHARSON'S THERAPEUTICS.[1]

The first edition of this work received from us an extended notice. The present additions and revisions contain a succinct account of the teachings and clinical experience of the last two years. We note especially the article on salicylic acid, which is a very fair *résumé* of our present knowledge. This second edition of the work possesses an advantage over other therapeutical English treatises in the fact that the doses of drugs are presented in the metrical system as well as in the apothecaries' weights and measures. Some of the additional matter in the preliminary portion of the book is well worthy of attention, especially what is said on page 28 in reference to "idiosyncrasies" and the "knack" of prescribing drugs which will best relieve the invalid sufferer. We still hold to the opinion that this book is the most convenient manual for the young and intelligent practitioner on account of the side-by-side arrangement of the comparative results of physiological action and clinical experiences. Thus at a glance the indications for treatment of a troublesome set of symptoms may be seen. The occasional introduction of formulæ is very convenient, and oftentimes suggests original combinations of remedies.

REPORT OF THE PENNSYLVANIA HOSPITAL FOR THE INSANE, 1878.

Dr. Kirkbride presents this year a report of eighty pages, which contains, besides the usual tables of statistics, much information of practical importance. Many useful hints and opinions are often found scattered through, and too often buried in, asylum reports. Our medical library would gladly receive and bind in convenient form complete sets of asylum reports, which would then be more instructive, and find an occasional professional reader. Superintendents would thereby be encouraged to enlarge upon the medical aspect of insanity.

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[1] *Farquharson's Therapeutics.* A Guide to Therapeutics and Materia Medica. By Robert Farquharson, M. D., Edinburgh. Enlarged and adapted to the United States Pharmacopœia by Frank Woodbury, M. D. Second American edition revised by the authors. Philadelphia: Henry C. Lea. 1879.

We can notice only two points discussed at some length in this report. Dr Kirkbride replies in part to Dr. Earle's recent statements that the high percentage of cures formerly reported by some superintendents was a mistake due to an over-sanguine temperament, or the including of recurrent cases as cured. Dr. Kirkbride's own record for the year is very good, since of two hundred and thirteen discharged, ninety-one were cured, fourteen much improved, forty-one improved, and twenty-eight stationary. Deaths, thirty-nine. He thinks recovery from insanity may be real if it is not permanent; and even frequent recurrences should not vitiate the record, if the patient has been able in the intervals to assume his ordinary place in society. Fever, rheumatism, dysentery, and other diseases may repeatedly attack the same person, and he may as often fully recover. While one superintendent may be too sanguine, it is possible for another to be too despondent, and each idiosyncrasy may lead to error. But it is better, on the whole, at least for the patient, to take the most encouraging view possible in his case, and of the two errors the optimistic one is preferable. He says, "So far as the experience of this institution goes, all subsequent observation tends to confirm the statement, made many years since, that of all recent uncomplicated cases of insanity, promptly placed under proper treatment, and perseveringly kept so, it may be fairly hoped that about eighty per cent. will ultimately recover."

We are glad to see in this report the emphatic statement of the fact, which it is often necessary to urge upon certain patients, that an insane ancestor or two does not necessarily doom one to insanity. Many a person has been driven to melancholia and suicide by the dread of inherited insanity, who, without the knowledge of his fatal inheritance, would have escaped. There are many encouraging facts in favor of immunity from hereditary mental disease, which need to be constantly kept in mind. For instance, insanity is just as likely to occur in an individual of bad education and personal habits, or in one enfeebled by ill health under the ordinary shocks of life, as in one who, forewarned by ancestral insanity, takes every precaution to avoid its exciting causes.

T. W. F.

THE SCHOOLS.

The Association of American Medical Colleges was formed three years ago, at the time of the Philadelphia meeting of the National Association. Its objects were the advancement of medical education in the United States and the establishment of a common policy among medical colleges in matters of college management. Each college is represented by one delegate having a right to vote; all colleges can become members, but any one violating the rules will, if charges are preferred and sustained against them, forfeit membership. These rules, termed "articles of confederation," and going into full force the coming season, provide for a careful adherence to the old three-years'-course plan, namely: There must be but one "regular" annual course; the length of each course must be at least twenty weeks; candidates for graduation must have studied medicine three years, having attended two "regular" sessions. The third-year studies may terminate three months before the expiration of the full three years. Article V. is devoted to fees, and contains seven sections regulating carefully what shall not be done in the way of making tuition easy for the student. Each college is obliged to make an annual report and to publish the rules in its catalogue. The second annual meeting was held at Buffalo. We find one college arraigned for conferring an honorary degree upon a person only twenty-eight years old, forty being the minimum age; but the delegate of that college explaining that they had utterly forgotten this provision of the law, the faculty was "let off." Charges were preferred and adopted against the Nashville Medical College for giving two graduating courses in one year; but similar charges, introduced at the third annual meeting, against the Kentucky-Louisville school fell through, owing to an informality. A communication from the Pennsylvania state society, favoring preliminary education, was laid upon the table. The Dartmouth school was obliged to withdraw, being unable to comply with the provision exacting a term of twenty weeks. It will be remembered that this school holds its "regular" term in the summer. At the next meeting the question of obliging students to take three collegiate courses instead of two will be discussed. This was brought forward by a motion made at the Convention of Medical Colleges, held, independently of the association, this spring, at which the preliminary examination was looked upon with favor.

To any one who reads carefully the proceedings of this association it will be evident that the object has been not so much to introduce any new plan of medical education as to exact a faithful adherence to at least a minimum standard, and to eradicate abuses which are as ingenious as they are gross. The association appears to be of a mutual protective character, designed to keep enterprising faculties from underbidding one another, and not a body bent upon true progress in medical education. Such an organization pulls downwards as much as it lifts upwards. Indeed, it would be difficult to arrange so that it should be otherwise, and for this reason we believe that the only road to improvement lies in the action of individual schools. Whether this body succeeds in enforcing its provisions or not, it will have accomplished something in exposing the absurd farce which has been enacted by many bodies in the name of medical instruction.

In glancing at the announcements for the coming year we observe that the University of Pennsylvania advertises a preliminary examination, to be held for the first time in 1880. The only weak point in its plan is the length of the regular term, which is but five months. Yale, on the other hand, in adopting the graded course this year, requires attendance during two full academic terms, from October to July. It also requires the preliminary examination, which includes mathematics in addition to the usual tests. The Chicago Medical College has been the apostle of the graded course for twenty years, but it does not appear from its announcement that this is not optional; the term is also the short five months' one. The Woman's Medical College of Chicago — an outgrowth of the former institution, owing to the failure of the experiment of the coeducation of the sexes there — is conducted on a modification of the old plan, the two years' course of lectures being divided into a junior and a senior course, the students being advised to follow the order suggested. The Cincinnati school has a voluntary graded system of four years' standing. The system at Syracuse is essentially the same as that which obtains at the

Pennsylvania. The McGill University at Montreal has a preliminary examination, including arithmetic, algebra, and geometry; the course is of four years' duration and "graded," but the sessions are of but six months' length, thus giving less actual instruction than Harvard does in her three years. At the latter university a fourth year is already being talked about. In New York there is not as yet a single ray of light to illumine the darkness.

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MEDICAL NOTES.

— Since the opening of the quarantine season, June 1st, there have been detained thirteen vessels out of three hundred inspected. These thirteen have come from infected ports, and some of them have had cases of yellow fever on board during the voyage. Only one man has been removed to the Quarantine Hospital. It would seem that the fever ran its course before reaching this latitude, as all the cases had either died or recovered before getting to port. The vessel from which the man was removed made a very quick passage, coming from Cuba in ten days, and he was convalescent when he arrived.

— In the St. Petersburg *Medicinische Wochenschrift* for June 24th is a lengthy report of Professor Manassein's experiments with cold enemata as antifebrile agents. They seem to have been very effective in bringing down the temperature. A litre of water is used at a temperature of 41° F. to 54° F.

— Koebler, having had long experience in the use of this form of treatment, recommends hot applications to the head in uterine hæmorrhages. He uses bags of sand of such high temperature that the hand can hardly bear it, but the patient bears it well. In any form of acute anæmia, the treatment is equally successful. Hot oats would answer as well, and be much lighter.

— Mr. Charles Frederick Maunder, surgeon to the London Hospital, and well known as operator, teacher, and writer, died suddenly July 11th. — Within one week, during the month of June, four distinguished scientific men died in Germany: in Berlin, Professor Koch, botanist, and Kröing, professor of physics; in Wiesbaden, Professor Neubauer, chemist; and in Greifswald, Professor Trommer. — The death of Dr. Batut, professor of clinical surgery in the School of Toulouse, and of Dr. Faivre, professor of botany and dean of the faculty of Lyons, is also announced.

NEW YORK.

— The New York College of Pharmacy has established a bureau for the examination of apothecaries' weights, to be placed under the authority and control of the Board of Pharmacy of the City and County of New York, and has provided itself with special balances and standard sets of troy and decimal weights, which have been compared with the United States standards in the Bureau of Weights and Measures of the United States Coast Survey office, at Washington, and which have been pronounced in the certificate of Professor J. E. Hilgard to be unusually exact. These weights will be used in the examination and verification of decimal, troy, or apothecaries', and all other kinds of weights. For this purpose a special stamp has been adopted, which will be used for stamping all the correct weights contained in any one set. In order to supply reliable and approved sets to those persons whose weights are found incorrect, the college will keep on hand sets of weights specially made for the purpose, which have been ascertained to be reliable, and have received the stamp of the college.

— An unusual form of death has just occurred in the harbor. James Jenkins, one of the most experienced divers in the country, was engaged in endeavoring to attach a chain to a sunken anchor lying at the bottom of the ship channel between Governor's and Ellis islands, where the water is about seventy-five feet deep, when suddenly the air-tube of his armor burst, and the suit at once collapsed. As soon as the accident occurred he was promptly hauled up by his comrades, but he was dead when they got him into the boat. He was seen to be bleeding from the nose and ears, and death was probably caused, not so much by the length of time that he was without air, as by the pressure upon his body of the collapsed armor suit, which had two hundred and fifty pounds of metal about it.

— George Pintler died in July, at Whitelake, more than a hundred and nine years of age. He was born in Newton, New Jersey, December 28, 1769, and his father was a soldier in the revolutionary war. It is stated that he voted for Washington in 1792, and has voted at every presidential election since. His brother died in February last at the age of ninety-nine years.

— A new free swimming bath has just been opened off the Battery, which is the finest of the city's baths. It has a tank about fifty feet square, and sixty dressing-rooms, and is lighted with gas. During the week ending August 2d the number of persons who availed themselves of the privileges of the public baths was 272,692,— 161,969 males and 110,723 females.

— The proprietors of two rival shops on Second Avenue, one of whom dispenses milk at four, and the other at three, cents a quart, have been arrested on charges of selling adulterated milk, on the complaint of Inspector White, of the health department. Information concerning them was furnished by a man, who stated that one of his children had died from cholera infantum, due, it was supposed, to the use of impure milk purchased at one of these shops, and that two others were sick from the same cause.

CHARLESTON, S. C.

— In common with most of our Southern cities Charleston has been visited by the recent tidal wave of intense heat. For three days the thermometer stood at 106° in the shade, and even higher in the interior of the State. In one day no less than seventeen deaths from sunstroke occurred in Charleston, yet during all this oppression and distress the total death-rate was thirty-nine; that is, nine whites and thirty colored, including three still-borns, and also two from old age, one between eighty and ninety, and one over one hundred years. This gives among the colored one death to every nine hundred, the greatest mortality being among infants, but only one to every three thousand among the white population. The only fever case was a child with remittent, which died. The return of much lower temperature within the last few weeks furnishes the following statistics for the week ending August 2d: Deaths from all causes, including still-borns and old age, forty-five; that is, sixteen whites and twenty-nine colored. As twenty-six of these were infants, there really were only nineteen total deaths at over five years of age, that is, ten whites and nine blacks, for a population of fifty-seven thousand. The causes of death were convulsions, marasmus, cholera infantum, congestion, and phthisis; one child died from eating concentrated lye. In prevalence of heat so great, and of filth which may always be discovered in a population of this size, if sought for, it becomes very proper to attend to so remarkable a bill of health, since there are those who are ever ready to ascribe every epidemic in our latitude to a certain range of temperature, a high or low due point, moisture, and organic decay.

ST. LOUIS.

— Thus far there have been but three cases of yellow fever in St. Louis, and these occurred in persons coming from Memphis.

— Quarantine Hospital has been thoroughly garrisoned, and boats coming from the South are obliged to undergo inspection at that point. At present there are three cases of yellow fever there, two of which are convalescent.

— The refugees from Memphis in St. Louis are holding meetings, and are contributing largely for their suffering fellow-citizens; this burden, however, should not be borne only by those who have been driven from home by the scourge, and whose financial condition has been very much crippled, but also by those of us who have been more fortunate, and undoubtedly it will be. Their condition appeals to all of us.

— All fears that yellow fever will visit us seem to have disappeared.

— It appears that some of our fraternity think that the Western youth have not sufficient medical advantages, though at present there are at least five medical colleges in the city, one belonging to the homœopathic, two to the eclectic, and two to the regular school of medicine, and some five hundred and seventy-one registered physicians in a place supposed to have some five hundred thousand inhabitants, and having the lowest death-rate of any large city in the Union. Nevertheless, Drs. Louis Bauer and Wm. Hazard have inaugurated a new medical college.

— Quite a number of prominent physicians are away taking a summer vacation. Dr. John T. Hodgen is in Ireland, where he will attend the meeting of the British Medical Association as a delegate from the National Association, and also by special invitation. Dr. John Green and Dr. Maughs are also among the absentees, endeavoring to recuperate for their winter work.

LITERARY NOTES.

— Dr. Stephen Smith's new work on the Principles and Practice of Operative Surgery, published by Houghton, Osgood & Co., will appear early in September, at which time we shall give an appropriate notice of it. It is a "new departure" in operative-surgery books.

— *L'Année médicale* is the name of a new annual publication published in imitation of similar periodicals, literary, political, and scientific, which appear in France. In order to make it sufficiently compact only the more important questions in each department of medical science are mentioned. It is edited by Dr. Bourneville, the editor of *Progrès médical.* The publishers are E. Plon et Cie., Paris.

— We have received a number of a new weekly journal devoted to the preservation of health. It is in double columns, with a neat heading. The leading article is by Dr. Charles Denison, On Out-Door Life in Colorado. The objects of the journal are stated by its editor, Dr. Edward J. Bermingham, of New York, to be, first, the publication of scientific and practical papers by eminent sanitarians; second, the diffusion of sanitary knowledge amongst the people.

— The North Carolina Board of Health have issued a pamphlet giving minute directions for performing medico-legal post-mortem examinations. They are adapted from the German regulations of 1877 by Dr. Thomas F. Wood, secretary of the board. The proper method of procedure in cases of suspected poisoning is also given. These papers are intended for the use of the coroners and county superintendents of health of the State.

BOSTON CITY HOSPITAL.

SERVICE OF DR. LYMAN.

[CASES REPORTED BY DR. C. W. HADDOCK, HOUSE PHYSICIAN.]

CASE I. *Chronic Pelvic Abscess.* — Mary A., age forty, entered the hospital October 17, 1878. She was married twenty years ago, and the following year her only child was born; labor easy and recovery good. Three years after she had some severe inflammatory attack in the lower part of the abdomen, and has been an invalid since. For ten years she has suspected "womb difficulty," as she has suffered from bearing-down pains. A second inflammatory attack in the same region occurred seven years ago, after which she wore a pessary for five years. This finally was removed, as it caused discomfort, and for the past two years her symptoms have been aggravated. For a year she has had pain in the back, bearing down, and weakness. Catamenia, though painful, always regular. Five weeks before entrance she began to flow (although menstruation had ceased a week before), and the metrorrhagia continued for four weeks. She now complains of severe pain in the uterine region, dysuria, and constipation. Tongue thickly coated; pulse 84; temperature normal. On examination the bladder is found prolapsed and presenting at vulva. The sound enters four inches through a patulous os uteri. A large, dense mass projects posteriorly in the pelvis and somewhat to the right, and is felt both per vaginam and per rectum, and not fluctuating. From these symptoms the mass was at first supposed to be fibroid. On the 22d, dysenteric symptoms set in, with severe pain and tenderness over the abdomen, frequent and painful micturition, and vomiting. This continued for three weeks, reducing the patient very much. On the 10th of November an examination revealed great sensitiveness upon the left side, and a dense, hard mass in front extending down between the bladder and cervix, with a sense of obscure fluctuation, the mass filling the whole right side of pelvis. Three days later some improvement is reported, the discharges from bowels having ceased, and the patient being more comfortable; but on the 15th a decided chill occurred, followed by fever, sweating, increased temperature, and feeble pulse. The next day there was less tenderness and no fluctuation discoverable, but in the evening a second chill occurred. On the 17th fluctuation was first distinctly felt on the right side.

Bixby's trocar was introduced high up in the vagina, and twenty ounces of thin, fetid pus were obtained, and the cavity afterwards was washed out with carbolized water every two hours. On the 18th, from the elevation of the pulse (124) and temperature (102.8°), it was inferred that there was another collection, and the trocar being reintroduced twelve ounces of thin, fetid pus was obtained. In the evening, thin, dark, offensive dejections came through rectum. Pulse 110, temperature 102°, with considerable pain in the pelvis. She gradually failed, and died on the 20th. The treatment consisted of fomentations, quinine, brandy, and champagne with morphia. The case is interesting from the length of time the effusion had probably existed before the occurrence of suppuration, the multiple abscesses, and the final extension by ulceration into the rectum. It also shows the occasional difficulty of diagnosis. When she entered the hospital, the density of the mass and the absence of fluctuation, the depth of the uterine cavity and the metrorrhagia, were much more significant of fibroid than of pelvic cellulitis.

Autopsy eighteen hours after death by Dr Cutler. The ileum was adherent to the pelvic viscera, and so drawn out as to form a tongue ten inches in length. The lower portion of the large intestine was somewhat ulcerated from just above the third sphincter to the hepatic flexure. The uterus contained a small mucous polypus. There was marked perimetritis in both sides, giving rise to formation of cavities filled with fetid pus. The intestines and pelvis were glued together by comparatively recent adhesion. Both Fallopian tubes were in a part of their course sacculated and filled with serous fluid. The right ovary was degenerated into a number of closed sacs. There were several cicatrices in the vagina, and a perforation from the abscesses in the broad ligament into the rectum just below the sigmoid flexure.

CASE II. *Version of Uterus.* — Mary C., aged twenty-seven, married, seamstress. Entered June 19th, under Dr. Draper. She had subsequently an attack of peritonitis, and recovered in four weeks, with exception of large bedsore. On the 24th of July, upon examination, the uterus was found by Dr. Draper to be retroverted. The cervix was enlarged laterally, but with normal depth. The left side of the body of the uterus was found to be tender, unusually hard and nodular. The malposition was treated with cotton tampons behind the cervix, but the condition of the patient prevented any persistent treatment. October 29th. Vaginal examination by Dr. Lyman showed the body of the uterus retroflexed and firmly bound down. The usual treatment by hot water injections, laxatives, etc., was ordered. November 12th. The organ was raised firmly into place, and kept there by a small-sized Hodges pessary. November 21st. She had an attack of vomiting, with severe abdominal pain and tenderness. This was relieved by morphine, starch enema, and laudanum fomentations. On the 23d there was some febrile action, and blood in the urine. This was treated by liquid acetate of ammonia and spirits of chloroform, followed by citrate of iron and quinine, etc. December 1st. The patient was placed in the genupectoral position, the uterus replaced and surrounded firmly with cotton tampons, which were replaced by a pessary the following day. The patient continued to feel some pain, with slightly increased temperature and pulse, and repeated attempts were made to keep the uterus in place until the middle of February, at which time, so far as her general symptoms were concerned, she was nearly well, but with little improvement in the position of the uterus.

Case III. *Polypus Uteri.* — Mary McK., age fifty-two, cook, single. Was admitted October 1, 1878. She always had good health until the menopause, eighteen months before, since when she had been weak. A fortnight previously, while making some effort to close a window, she felt a protrusion at vulva, and had since had some bleeding from it. Examination revealed a fibrous polypus, with its stem attached high up in the cervical canal. It was pulled down with vulsellum, and the pedicle divided. No hæmorrhage.

Case IV. *Epithelioma of Cervix Uteri.* — Mrs. C., age forty, married twenty-two years. Was admitted as private patient October 9, 1878. Her grandfather, father, and three aunts had "cancer." She had had four children; no miscarriages. Since the last child, ten years ago, she had been troubled with lameness in the back and loins. Two years since she began to have occasional watery vaginal discharge, gradually becoming more profuse, and tinged with blood until a year ago, when it became entirely blood. The metrorrhagia occurs sometimes during menstruation, but she thinks she can always distinguish it. It had been accompanied with more or less sharp, cutting pain near the rectum, and a feeling of pelvic fullness. She was quite anæmic, and had lost flesh and strength; had been troubled with hæmorrhoids since the birth of first child. Micturition normal. A journey of twenty miles induced considerable exhaustion and large loss of blood. Examination revealed extensive loss of cervix from epithelioma. Portions of the diseased mass were removed, and the cavity packed carefully with cotton saturated with subsulphate of iron. The patient was soon discharged, with directions to continue the treatment; but six months later she was comfortable, and had had no further hæmorrhages. The case is reported as one of several instances in which the application of subsulphate has arrested the hæmorrhages and checked the rapid progress of the disease, rendering the patient comparatively comfortable.

Case V. *Epithelioma of Urethra and Base of Bladder.* — Bridget M., age thirty-four, married. Was admitted November 26, 1878. Family history obscure. Has had nine children, the last born a week before admission, and one miscarriage at third month. Eleven years ago, while pregnant, she had some inflammatory trouble about vagina, which disappeared after birth of child. She had been well since until her last pregnancy, during which, three months ago, she complained of pressure in the uterine region, with incontinence of urine, cough, and night sweats, and has lost flesh and strength. Vomiting distressing; dysuria marked. She denies any specific affection. The vulva was a mass of ulceration and excessively painful. This was greatly relieved by injections of carbolized water, strict cleanliness, and separation of the surfaces by cotton smeared with vaseline. On the 28th an examination revealed a transverse opening through the neck of the bladder of about one inch, admitting the finger. The whole vaginal surface of the urethra was eroded, the surrounding tissues indurated and thickened, two deep ulcers on either side of the labia opposed to each other and sloughy. Otherwise, the vagina and cervix were healthy, the latter being still dilated from the delivery. No lochial discharge. During the following month, under tonics, stimulants, and constant injections of a weak solution of carbolic acid, the patient was rendered very comfortable, the vulva healing entirely; but being unable to bear a self-retaining catheter, there was incessantly a constant dribbling of urine. Portions of the tissue examined by Dr. Cutter confirmed the diagnosis. She was subsequently discharged at her own request, somewhat relieved. Visited at her house two months later, the disease was found to have increased rapidly upon the surrounding vaginal surface. The case is interesting from its unusual position.

CASE. VI. *Laceration of Perinæum and Cervix Uteri; Hypertrophied Uterine Mucous Membrane.* — Dora H., aged twenty-eight, married. Was admitted October 1, 1878. She had one child five years ago, from which she "made a slow recovery," and a miscarriage two and a half years ago, at six weeks. Three weeks before entrance profuse leucorrhœa began, and lately she had had every few days pain in the back, with a bright red flow from the vagina. After standing for any time she suffered from distressing pressure in uterine region. No dysuria, but occasional slight increase in frequency of micturition. October 3d. On examination the body of the uterus was found prolapsed, the right side of the cervix torn down to the vaginal junction, with strong eversion of the mucous membrane. There was also deep laceration of the perinæum, extending to the sphincter. October 4th. After dilatation the interior of the uterus was curetted, and considerable hypertrophied mucous membrane was removed. This was repeated on the 19th, after the ensuing menstruation.

On the 25th, she was etherized; the cervix drawn forward; the lacerated edges thoroughly freshened and brought in apposition by five deep silver sutures and a superficial one of silk. On the 3d of November four of the sutures were removed, and on the following day the last one, the union being perfect.

December 7th. At the termination of a menstrual period she was again etherized; the lacerated edges of the perinæum were thoroughly denuded in the manner recommended by Dr. Jenks, and the mucous membrane of the vagina dissected well back. The denuded surfaces were brought together by silver sutures, the patient catheterized, her knees bandaged together, and she was sent to bed. The following day the patient had a rigor, the temperature subsequently rising to 103°, with considerable abdominal pain. Quinine was ordered every two hours, and the vagina syringed with carbolized water through a double catheter. Catheter passed every four hours.

For several days there was great irritability of the bladder, which, however, gradually subsided, and on the 13th the two lower sutures were removed, and on the 16th and 17th the remainder. 20th. A small opening in the centre of the perinæum was touched with nitrate of silver. January 6th. Both perinæum and cervix were thoroughly united, and the patient was discharged well.

CASE VII. *Laceration of Cervix Uteri.* — Mary C., twenty-eight years of age, married. Entered the hospital October 29th. Has one child two years old. No miscarriages. Two months and a half ago, a fortnight after menstruation, she was attacked with flowing. This lasted several days, large clots coming away. She was confined to her bed for two or three weeks with back-ache, pain in hypogastric region, and a stitch in the right hypochondrium. She had at time of entrance swelling and great tenderness in right iliac region, and during the previous week had had several chills followed by fever. Micturition normal and bowels regular, though defæcation is painful. She also vomited occasionally, and slept poorly on account of pain. Pulse 96. Temperature

99.5°. November 3d, upon examination the cervix uteri was found to be lacerated on both sides, hypertrophied, and the cervical canal everted and very patulous. The sound entered two and three quarters inches. There was also a slight laceration of the perinæum. A portion of hypertrophied mucous membrane was removed from the uterus by the curette, the cavity swabbed with tincture of iodine, and hot douches were ordered twice daily. 19th. No hemorrhage since the 3d. The congested membrane about the os was scarified and tincture of iodine applied.

25th. A series of lumps in the course of the colon were noticed, apparently fæcal. These were removed by small repeated doses of sulphate of magnesia.

December 5th. She was etherized, and the lacerated surfaces of the cervix were thoroughly denuded. The anterior and posterior lips were then placed in apposition, and held there by silver sutures in the usual way. The patient remained perfectly comfortable until the following evening, when she had a severe chill, with offensive vaginal discharge. Pulse 120. Temperature 103°. She had two grains of quinine every two hours, and the vagina was washed out with carbolized water.

9th. Patient more comfortable until this morning, when she had two chills, followed by cold sweats; but the temperature was only 99°, and the pulse was good. There was also some mild delirium. Stimulants and quinia were ordered, and on the 10th the delirium had ceased, and she was very comfortable, though somewhat weak and discouraged.

13th. Another chill occurred last evening, the temperature rising to 103°. the pulse being only 78. Some pain and tenderness over the abdomen. Four of the sutures were removed, and the quinine continued. 19th. The patient steadily improved, and to-day was menstruating. 22d. The menses ceased, and the remaining sutures were removed. 28th. Cervix perfectly united, and the patient discharged well.

MEDICO-LEGAL NOTES.

DAMAGES.

In a town in Grafton County, N. H., A. P. N. claimed to have been injured by a defective highway; that in consequence of said injury the right shoulder and elbow joints were painful and completely immovable; had the arm lashed to the body, and the fore-arm supported across the body, with hand as high as the left axilla. He demanded four thousand dollars damages. Dr. Tuttle, of Littleton, N. H., and Dr. Allen, of White River Junction, Vt., were requested by the town officers to examine the case. They did so, administered sulphuric ether, and found the joints perfectly movable, and apparently perfectly healthy. The claim was at once settled for seventy-five dollars, and the man was cured.

SHORT COMMUNICATIONS.

THE SIGNIFICANCE OF DIPLOPIA.

That diplopia is not very uncommon most medical men can testify. Its presence may excite solicitude when it is binocular and seems due to some intra-cranial or intra-orbital cause, as by the pressure of a tumor on one of the oculo-motor nerves, or on the eyeball itself.

Binocular diplopia resulting from other causes, as temporary local paralysis, the unfortunate result of a tenotomy for the correction of strabismus, etc., need not be considered here, as examples of monocular diplopia or polyopia are more commonly the ones met with, and it is this variety that will be dwelt upon. By no means seldom, patients having an excess of mucus in the conjunctival sac, due to an inflammation of the conjunctiva, and very likely of the tear passage, complain at times of diplopia on looking at objects near to, as in reading. The same annoyance is sometimes produced by pterygium, irregularity in the curvature of the cornea after a wound, coloboma of the iris (a congenital slit, due to arrest of development), luxation of the lens, and congenital irregular astigmatism. It has been frequently observed by oculists in incipient senile cataract.

In my notes, taken in the last three or four years, of the examinations of ninety-two patients having ordinary incipient cataract, the following abnormalities are recorded: diplopia, nineteen; myopia, four; polyopia, two; irregular astigmatism, five. Males, ten; females, twenty. Of the thirty persons who noticed refractive defects, twenty-five were private patients, while but five of the thirty cataract patients seen at the Salem Hospital had remarked anything abnormal. This was possibly due to a want of observation on their part, and the same reason may have accounted for the small number of males who reported visual troubles. The writer is aware that these few examples are insufficient for any statistical value, but their publication may tend somewhat to allay alarm at the presence of diplopia (as in seeing "two moons") in a person who has previously enjoyed both health and sight.

A word as to the cause of this form of double sight. It is well known, at least among specialists, that in the beginning of senile cataract the affected eye may become myopic by the alteration in the curvature of the lens, brought about, perhaps, by a swelling of its substance, owing to some defect in exosmosis through the capsule. (This state of refraction is sometimes so marked that — as has occurred in two of my patients — a very considerable degree of help to vision is found by wearing concave glasses.)

So, too, diplopia, polyopia, irregular astigmatism, etc., are doubtless occasioned by an irregular swelling or imbibition of certain sectors of the lens. That it is monocular, and is not dependent on any central trouble, is found by alternately closing first one eye and then the other. In binocular diplopia vision becomes single on closing either eye, while in monocular diplopia the vision is single only when the affected eye is covered.

SALEM, MASS. DAVID COGGIN, M. D.

PSEUDO-HYPERTROPHIC PARALYSIS.

MR. EDITOR, — In Bath, Grafton County, is a case of pseudo-hypertrophic paralysis in a male aged fourteen years. The muscles of the thighs are affected. The disease has been in progress three years, and there is now complete paralysis of all the muscles of the legs. No similar affection in the family, near or remote. The boy often "went swimming," and had a severe contusion upon the lower spine some time before the symptoms of paralysis appeared. Treatment by massage and electricity has been without good result. These cases are so rare that I have thought it worth reporting. The case has been seen and diagnosticated by Dr. Tuttle, of Littleton, N. H. WILLIAM CHILD, M. D.

YELLOW FEVER.

MR. EDITOR, — I was mistaken about the date of the attack of Louisa Creel by yellow fever at Mississippi City. It should be July 6th instead of July 13th.

No case has sickened here since July 29th. Our dread is rather of inland quarantines than an epidemic. S. S. HERRICK.

NEW ORLEANS, *August* 8, 1879.

AMNIOTIC FLUID.

MR. EDITOR, — I notice in this week's number of your JOURNAL the report of a case by Dr. Wakefield where there was entire absence of amniotic fluid. The case I think well worthy of note, and I would like to see more of such letters from the profession when finding such abnormalities. In a practice of twelve years I have never met with anything of this kind till the present summer, the principal points of which I will give. The first case occurred July 3, 1879. Mrs. B., a primipara, aged thirty-nine and a half years, after a labor lasting only seven hours, gave birth to a female child (eight pounds). Mother and child did well. The second case, July 8th, was a primipara. Mrs. R., aged twenty years, small, but very fleshy, after a labor lasting ten and a half hours, gave birth to a male child (twelve pounds). Ether was given in both cases, and forceps used in the latter. There could be no mistake about the above cases, as I was present from the ushering in of the first symptoms, and constantly by them during the labors. Yours respectfully,

FREEPORT, ME., *August* 9, 1879. JOHN G. PIERCE.

REPORTED MORTALITY FOR THE WEEK ENDING AUGUST 9, 1879.

Cities.	Population estimated for July, 1879.	Reported Deaths in each.	Annual Death-Rate per 1000 during the Week.	Percentage of total Deaths from				
				The Principal "Zymotic" Diseases.	Diarrhœal Diseases.	Diphtheria and Croup.	Pneumonia.	Scarlet Fever.
New York	1,085,000	710	34.12	38.87	33.52	1.97	3.38	.85
Philadelphia	—	—	—	—	—	—	—	—
Brooklyn	564,400	265	24.48	39.25	30.57	3.40	2.64	.38
Chicago	—	199	—	41.21	27.64	5.53	3.02	1.51
St. Louis	—	140	—	37.71	22.14	.71	.71	—
Baltimore	365,000	164	23.43	31.10	17.07	2.44	.61	4.88
Boston	350,000	222	32.08	54.95	47.30	2.25	2.25	1.82
Cincinnati	280,000	105	19.55	33.33	21.90	1.90	1.90	7.60
New Orleans	210,000	84	20.86	23.81	13.10	1.19	1.19	—
District of Columbia	160,000	83	27.05	31.33	25.30	—	4.82	1.21
Cleveland	—	78	—	46.15	39.74	—	—	1.20
Pittsburgh	—	61	—	47.54	31.15	6.56	4.92	—
Buffalo	—	—	—	—	—	—	—	—
Milwaukee	—	61	—	49.18	49.18	—	—	—
Providence	101,500	51	26.20	45.10	35.30	1.96	5.88	3.92
New Haven	60,000	29	25.20	24.14	17.24	3.45	3.45	—
Charleston	57,000	25	22.87	16.00	8.00	4.00	—	—
Nashville	27,000	11	21.24	54.55	36.36	—	—	—
Lowell	53.300	29	28.36	48.28	48.28	—	—	—
Worcester	52,500	22	21.85	27.27	13.64	4.55	—	—
Cambridge	50 000	30	31.29	40.00	40.00	—	—	—
Fall River	48,500	26	27.95	30.77	26.92	—	—	3.85
Lawrence	38,200	27	36.86	51.85	25.92	—	—	—
Lynn	34,000	13	19.94	38.46	38.46	—	—	—
Springfield	31,500	12	19.86	66.67	50.00	16.67	—	—
New Bedford	27,000	24	46.34	58.33	50.00	4.17	—	—
Salem	26,400	16	31.60	37.50	31.25	—	—	—
Somerville	23,350	13	29.03	84.62	76.92	—	7.69	—
Chelsea	20,800	8	20.06	12.50	12.50	—	—	—
Taunton	20,200	7	18.07	42.86	42.86	—	—	—
Holyoke	18,200	13	37.25	61.54	23.08	7.69	—	7.69
Gloucester	17,100	5	15.25	40.00	40.00	—	—	—
Newton	17,100	—	—	—	—	—	—	—
Haverhill	15,300	8	27.26	25.00	25.00	—	—	—
Newburyport	13,500	5	19.31	20.00	20.00	—	—	—
Fitchburg	12,500	3	12.51	66.67	33.33	—	—	—

Two thousand five hundred and forty-nine deaths were reported (previous week 2437): 1018 from the principal infectious diseases, 796 from diarrhœal diseases, 233 from consumption, 62 from diphtheria and croup, 60 from pneumonia, 37 from whooping-cough, 36 from scarlet fever, 36 from typhoid fever, 29 from bronchitis, 22 from malarial fevers, 13 from cerebro-spinal meningitis, nine from measles, five from erysipelas, one from small-pox (New York). From *whooping-cough* Brooklyn reported 10 deaths, Boston and Pittsburgh five, New York, St. Louis, and Baltimore three, Cleveland two, Cincinnati, Providence, Lawrence, Salem, Holyoke, and Fitchburg one. From *typhoid fever*, Chicago seven, St. Louis six, New York five, Baltimore four, Boston and District of Columbia three, Lawrence two, Brooklyn, Cincinnati, Cleveland, Pittsburgh, Providence, and Holyoke one. From *malarial fevers*, New Orleans eight, St. Louis five, Chicago three, Nashville two, Baltimore, District of Columbia, New Haven, and Charleston one. From *cerebro-spinal meningitis*, New York three, Baltimore and Worcester two, St. Louis, Cleveland, Springfield, New Bedford, Somerville, and Holyoke one. From *measles*, New York five, St. Louis two, Brooklyn and Baltimore one. The cases of yellow fever increased very much in Memphis; one death was reported in Brooklyn. The death-rate of whites in District of Columbia was 17.79; colored 40.86.

The noteworthy changes for the week are a considerable increase in typhoid fever and diarrhœal diseases, and a decline in the mortality from consumption, measles, and scarlet fever. In sixteen of the cities of Massachusetts, with an estimated population of 766,650, there was an increase in diarrhœal diseases.

The weather was hot and dry; the meteorological record for the week in Boston being as follows: —

Date.	Barometer.	Thermometer.			Relative Humidity.				Direction of Wind.			Velocity of Wind.			State of Weather.[1]			Rainfall.	
	Mean.	Mean.	Maximum.	Minimum.	7 A. M.	2 P. M.	9 P. M.	Mean.	7 A. M.	2 P. M.	9 P. M.	7 A. M.	2 P. M.	9 P. M.	7 A. M.	2 P. M.	9 P. M.	Duration.	Amount in Inches.
August 3	29.876	78	91	75	69	51	61	60	W	W	W	11	13	8	F	H	F	—	—
" 4	29.902	73	84	69	71	67	81	73	NW	E	S	6	5	2	F	F	R	—	.01
" 5	29.826	76	90	67	80	62	69	70	SW	SE	S	8	7	8	C	F	F	—	—
" 6	39.761	78	88	69	81	28	49	52	W	W	NW	10	19	10	C	C	C	—	—
" 7	29.809	70	82	60	50	26	70	48	NW	W	W	14	8	7	F	F	C	—	—
" 8	29.816	62	66	60	89	83	100	90	O	E	NE	0	13	5	O	O	O	—	.12
" 9	29.912	64	69	59	94	70	94	86	W	SE	SE	4	5	1	O	O	O	—	—
Week.	29.850	71	91	59				69		W			1407 miles.					8.67	.13

[1] O., cloudy; C., clear; F., fair; G., fog; H., hazy; S., smoky; R., rain; T., threatening.

During the week ending August 16th there were in Memphis 41 deaths and 183 cases of yellow fever, and previously reported, 360 cases and 90 deaths.

For the week ending July 19th, in 149 German cities and towns, with an estimated population of 7,542,903, the death-rate was 25.1 (previous week 27.5). Three thousand six hundred and forty-two deaths were reported: 560 from diarrhœal diseases, 490 from consumption, 282 from acute diseases of the respiratory organs, 94 from diphtheria, 65 from whooping-cough, 53 from typhoid fever, 45 from measles, 45 from scarlet fever, nine from puerperal fever, two from small-pox, one from typhus fever. The death-rates ranged from 13.9 in Metz to 34.4 in Berlin.

For the week ending July 26th, in the 20 English cities having an estimated population of 7,383,999, the death-rate was 17.6, an increase of 0 5 over the previous week. Two thousand four hundred and eighty-nine deaths were reported: 182 from diseases of the respiratory organs, 103 from scarlet fever, 78 from measles, 62 from whooping-cough, 61 from diarrhœa, 42 from fever, 12 from diphtheria, six from small-pox (in London). The death-rates ranged from 10.3 in Portsmouth to 21.4 in Sunderland; London 17.4; Birmingham 16.5; Liverpool 18.6.

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Books and Pamphlets Received. — North Carolina Board of Health. Method for Post-Mortem Examinations. Raleigh, N. C., July, 1879.

A Successful Case of Intravenous Injection of Beef Peptone for Exhaustion from Hæmorrhage from Uterine Cancer. (Transactions of Obstetrical Society of New York.)

History of the Discovery of Anæsthesia. By J. Marion Sims, M. D. (Virginia Medical Monthly.)

Reflex Cerebral Hyperæmia. By C. H. Hughes, M. D. (St. Louis Medical and Surgical Journal.)

The Progressive Attributes of Inanimate Matter and the Purposive Operations of Organic Structures. By A. J. Hawe, M. D.

Guide to the Examination of Urine, with Special Reference to the Diseases of the Urinary Apparatus. By K. B. Hoffman and R. Ultzmann. From the Second Edition. Translated and edited by F. Torcheimer, M. D. With Illustrations. Cincinnati. 1879.

Insane Drunkards. By Theodore W. Fisher, M. D. (Harv.) (Read at the Annual Meeting of the Massachusetts Medical Society.)

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LECTURES.

BOSTON CITY HOSPITAL: CLINICAL LECTURE NO. XVI.

BY DAVID W. CHEEVER, M. D.,
Professor of Clinical Surgery in Harvard University.

Infantile Paralysis. — GENTLEMEN, — Our first case is one of great interest, because it is unlike anything we have had before this winter. The patient is a little girl, six years of age, who ought to have been examined without ether, in order that we might see how much voluntary power she possesses. But her terror was so extreme that we were obliged to etherize her. At one year of age the child had the measles, and subsequently lost power in the right leg. Since that time a remarkable difference between the two legs has been growing more and more apparent. This dissimilarity consists of a difference in size and in length. The left femur is nearly an inch longer than the right; the left tibia is much longer than the right, as you may see when the inner malleoli of the two legs are placed side by side. While they are in this position you also see that one patella is considerably higher than the other. One tibia is not only much longer than the other, but the whole of the left leg is much larger than the right. Hence the right leg is in a state of non-development. There is really a difference of years between these two limbs. In the right is a lack of size, strength, and temperature, with a very lax ankle-joint. Before she came here the question was raised as to whether she had hip disease. I can see no indications of it. The folds of the groin are alike; the relative positions of the two spines of the ilium are alike. I should not be surprised if one side of the nates were undeveloped, and hence it may simulate one of the symptoms of hip disease. Turning the child over on her face, I find it is so, namely, the gluteal fold of the affected side has become somewhat lessened, and the natis of this side is flattened. This condition is entirely due to the wasting or lack of development of the whole limb. The hip-joint is perfectly movable, and motion causes no pain. We can therefore safely say that there is no articular disease. The right leg is one inch shorter than the left, and much weaker. In walking the child limps, because of this shortening. The limb has had a certain amount of artificial support, and must always have it; otherwise talipes valgus would set in, the scaphoid would be pushed out, and the child would begin to walk on the inside of the foot.

Is there any spinal disease? I think not, because if there were both legs would be affected, and there would probably be a spinal curvature as well. On examination I find the spine is perfectly normal, and absolutely free from all signs of Pott's disease. While I was examining the child, previous to the etherization, she threw herself about so violently, from fear of me, and bent the spine this way and that so rapidly and with such variety of movement, that I knew there could be no spinal affection. No operation is called for here, for the condition is not due to contracted tendons, but is purely a lack of power from deficient growth. Nothing can be accomplished by cutting tendons. Aid can be rendered only by some form of support. The treatment, then resolves itself into giving assistance to the ankle. Without this the child would gradually become more helpless, from an unwillingness to use the weak limb. Massage, rubbing, and electricity will also be of use here. Massage will improve the circulation, and give the limb passive exercise, which, being administered by another person, will cost the patient no fatigue. Electricity, too, will stimulate and strengthen the general condition of the limb. The trouble having originated in measles, when the child was one year of age, the cause, of course, has long since disappeared. The question now arises, Will this limb ever be as sound as, and symmetrical with, the other. Probably not, but we can give it more strength. We have also to decide as to whether the limb be growing. This we cannot settle now, but only by watching it for a year. At maturity this leg may be four or five inches shorter than the other.

Nasal Polypi. — This patient has just applied for relief, and the operation which he needs can be done without ether. His age is forty-six years. He complains of a stoppage of both nostrils, especially the right, upon looking into which I see a whitish body, which undoubtedly is a polypus; and the diagnosis is confirmed by the fact that the patient had a similar body removed nine years ago. I am in doubt as to whether there be a polypus in the left nostril. It is probable that the nasal septum is pushed over into the left nostril by the polypus in the right. We cannot examine it properly until after it has been extracted. This is accomplished by means of forceps of various shapes. The instrument grasps the polyp, which is removed by being twisted off, a bit of the turbinated bone from which it grows generally coming away with the tumor. The only embarrassment attending the operation is a smart bleeding of the nose. No other trouble is entailed.

In this case the polyp comes away in fragments, and finally a piece of bone, having a smaller polyp attached, shows how these growths start.

This operation is often done in the doctor's office, but, personally, I do not like to do it at home, because after the operation patients sometimes become very weak, and so must be left for a long time in quiet. It is much better to operate at the patient's own house.

Solutions of quinine or carbolic acid and of astringents are said to prevent a recurrence of these growths. Something may be accomplished by such applications, but unless we remove the shelf of turbinated bone from which they grow, they will be certain to reappear. The right nostril now being clear, I examine the left, and find no polypi.

Growth in the Antrum. — Our next patient has a very unfortunate history. In her childhood began a lateral curvature of the spine, which she thinks was due to neglect in applying the proper support. Her spine and thorax are much deformed. There is no disease of either heart or lungs, although the former is displaced. But the patient is far from strong. Fourteen months ago she noticed in her right cheek a growth, which protrudes from the antrum, and has absorbed the external wall and palatal process over a space oval in shape. The orbit, however, has not been invaded, and there is no evident infiltration. Such growths usually infiltrate into the cheeks and palate, the whole becoming œdematous and a confused mass of disease. Here the entire growth seems to be confined to the antrum, and, consequently, I am the more hopeful that it is not malignant, and think I shall be able to remove the disease without taking out the orbital plate or roof of the antrum. But if it prove to be worse than I now believe, I shall have to excise the whole of the superior maxillary bone.

Contrary to my usual custom, I prefer to operate without first opening the trachea, because of the extremely delicate condition of the patient's lungs. My fear would be lest the tracheotomy result in a pneumonia. I shall therefore do the operation in the old way, namely, in the upright posture, and shall make Fergusson's incision from the inner angle of the eye, along the ala of the nose, and through the median line of the upper lip, which will enable us to turn back the cheek. The orbit, as you see, has not been invaded; the eye is not displaced, nor is the orbital process pushed upward. There is considerable venous hæmorrhage, which must be arrested before we go any further, for the patient cannot afford to lose blood. Preliminary incisions always cause the most bleeding, and occupy the greatest length of time. I have reason to be glad that I did not remove the roof of the antrum, for it is sound. Here I show you the wall of the antrum, which I have sawn off below the orbit, and taken away with the palatal process. The morbid growth took its rise from this portion of the bone. The soft portion, which was about as large as an English walnut, has broken into fragments. I now mop out the cavity with a solution of the perchloride of iron in order to arrest hæmorrhage. The subsequent deformity here will be small, because I have left the malar bone and the orbital process. Indeed, now that the incision is closed, you may see that there is really less deformity than there was before the tumor was removed. The operation has involved the excision of about one half of the antrum.

Talipes Equinus, with Contracted Knee and Hip. — Our next patient, a girl of fifteen, was sent to us from the country. It seems that when she was born it was by the breech, and at the time it was supposed she had received some injury about the hip, which was treated as a congenital dislocation of the hip-joint. She has been four days in the hospital. I am about to do an operation to cure a deformity, the nature of which is very apparent, namely, *talipes equinus*, which has been caused by a contraction of the tendo-Achillis. The foot is being gradually drawn in, and the patient is using it as a bird does its claw. You see the scars which already indicate this abnormal position. There is no anchylosis of the ankle, but the leg is poorly nourished, and is probably weakened by a partial paralysis of the extensor muscles. Meanwhile, you may see, higher up the limb, other contractions, which have caused shortening at the knee, together with a considerable inversion of the hip. How far the latter will give way under the effects of ether I do not yet know. The resisting tendons in the ham need not be cut, but may be treated by an apparatus which, by making a fulcrum of the knee, may be made to act on the foot so as to flex it on the leg and also straighten the whole limb. Is the hip dislocated? The leg is capable of rotation and pretty free motion. The adductor and gracilis muscles stand out in strong tension, and I find some adhesions which are due to a lack of use of the leg. If the femur be dislocated in this position of inversion and shortening, the head of the bone will be found on the dorsum of the ilium. But as to the location of the head of the femur, that can be determined by Nélaton's test, namely, by a line drawn from the anterior superior spine of the ilium to the tuberosity of the ischium. This line should pass just over or above the great trochanter. I applied this test day before yesterday, and the trochanters then appeared to be symmetrical. As I now repeat the test you see that on the affected side the line passes directly above the head of the trochanter. On the sound side this tuberosity actually seems to be a trifle higher than on the other side. Consequently, the head of the bone cannot be out of the socket and on the dorsum. This may be one of those cases in which some injury at birth has resulted in inversion of the hip by contraction of the muscles, and in talipes equinus. What I propose to do is to cut the tendo-Achillis and try to straighten the limb, with the hope that all the deformity will disappear. It is very probable that we can convert this limb into a useful member. Some of the muscles are paralyzed, some spasmodically contracted, and hence the deformity. My own conviction is that this condition was ante-natal, and that it may have been increased by pulling and other manipulation at the time of birth. Cutting the tendo-Achillis is done by the subcutaneous division of the tendon, without any subsequent suppuration. This was performed years before the Lister method was known. The discovery was made by John Hunter that wounds which were protected from the air by a skin covering would not suppurate. The pointed tenotomy knife is used to make a slight subcutaneous incision near the tendon. Into this opening I introduce a blunt-pointed tenotome, and cut straight downward through the tendon. This can be done with comparative safety, for there is below the tendon a large space filled with areolar and adipose tissue, which protect the deep muscles and vessels. In doing this operation the surgeon requires an assistant, who at first relaxes the tendon by extending the foot, so that the cutaneous incision can be easily made. After the blunt knife is introduced the foot is strongly flexed; the tendon is thus made tense, and the knife goes easily through. We then squeeze out any air which may have entered, press upon the vein which is often divided here, fill up the hollow with a mass of charpie, apply a compress, and fasten down by means of adhesive plaster.

The question next arises, When shall we apply the shoe to bring down the heel?

Mr. Syme applied apparatus at once after tenotomy. Others, and I am among them, prefer to wait three to four days, in order to avoid the risk of venous hæmorrhage and a thrombus by pulling apart the divided veins.

Finally, I shall use, for a week or two, extension to the leg and thigh, and subsequently advise passive motion and faradization of the weaker muscles.

Carbuncle. — The last patient I have to show you is sixty years of age, and has an enormous swelling on the back of his neck, extending from ear to ear and from the occiput to the shoulders. The edges are hard, œdematous, and dusky red. There are two central portions, which are of a purple color, and are riddled with minute openings, from which shreds and pus are exuding. The neck is also much thickened. He says the trouble has existed two weeks, but it must have been longer. The swelling is a carbuncle, and is one of unusual dimensions.

I propose to lay it open to the bottom by a crucial incision. This treatment prevents the extension of the carbuncle, and favors the discharge of the sloughs and pus. The danger of this treatment is from hæmorrhage, especially in a weak person. To check bleeding I shall pack the cuts with oiled rag and small sponges dipped in perchloride of iron.

The incisions which I have just made measure eleven inches and a half by six and a half.

The compression with sponges and styptics has checked all the bleeding. The dressing will be changed in twenty-four hours, and a charcoal and flaxseed meal poultice applied. Meanwhile, it is of great importance that the patient's strength should be sustained with food, stimulants, and tonics.

The other methods of treating carbuncle are: (1) without incisions, leaving the sloughs to loosen of themselves; (2) making subcutaneous incisions with a curved, sharp-pointed bistoury, and coring the centre of the swelling; (3) treating it with strong caustics. Experience has convinced me that in the majority of cases free crucial incisions succeed best.

THE EVIDENCE OF STILL-BIRTH.[1]

BY MEDICAL EXAMINER S. W. ABBOTT, M. D.

I HAVE introduced these observations to show that desiccation *may* take place apart from the living body. The presence of the living body hastens desiccation by its high temperature. These observations do not affect the question of still or living birth so much as the questions, How long did this child live? and, How long has it been dead?

Before making the internal examination, the condition of the inferior femoral epiphysis should be noted, the knee-joint being opened, the epiphysis exposed, and thin transverse slices made through the epiphysis until the widest part of the point of ossification is reached, provided such a point be found.

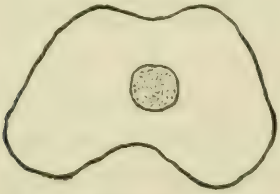

FIG. 1. A transverse section of inferior epiphysis of left femur at maturity.

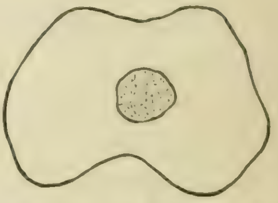

FIG. 2. Section of inferior epiphysis of left femur at age of two weeks.[2]

Casper lays down the following rule: "An osseous nucleus of three Rhenish lines (about six millimetres) in diameter permits the deduction that the child has lived after its birth." But few exceptions to this rule are likely to arise, and any that may occur may be tested by the hydrostatic test. The reverse of this rule, however, does not hold good, namely, that an osseous nucleus of less than six millimetres in diameter does not prove that the child was still-born. Previous to the thirty-seventh week of pregnancy the nucleus is not present.

This test, first proposed by Beclard in 1819, is now well established, and should always be taken, especially in doubtful cases. In addition to

[1] Continued from page 259.

[2] See Case 21, Records of Corresponding Secretary.

this, I will allude briefly to another test lately proposed by Dr. Wreden, of St. Petersburg, and verified by Dr. Ogston, of Scotland, by dissections of fifteen infants. They state that the middle ear is filled with a gelatinous substance up to the time of birth, this substance disappearing and giving place to air shortly after birth, but not in less than twelve hours. Hence they infer that air in the tympanic cavity is a sign of live birth.

If, upon the preceding inspection of the body, the medical examiner shall determine that it is not that of a viable infant, it will not be necessary to proceed farther.

In examining the internal organs, in order to come to a decision in regard to the question of living or still birth, we may conveniently group them as follows: the respiratory organs, the circulatory organs, the abdominal organs.

The Prussian criminal code, in its regulations for the conducting of autopsies upon new-born children, directs that the abdomen shall be laid open before any other cavities.[1] This gives an opportunity to examine the *diaphragm*, which in infants who have never breathed will be found highly arched (as high as the fourth intercostal space). In infants which have breathed it will not be found above the fifth intercostal space. Deviations from this rule are rare, and hence its value as a diagnostic sign. It should, however, be stated that transitory respiration may modify its value, and the diaphragm may occasionally be forced upward or downward by the accumulation of gas in the abdomen or the thorax.

The *thorax.* The external measurements of the thorax once ordered by the Prussian code are no longer required. These measurements were suggested by the observations of Daniel, who proposed them as a test, but the more careful observations of Casper and Elsässer show that the *vaulting of the thorax is of not the slightest diagnostic value.*

The *lungs:* their *situation.* This should be especially noted. If there has been no respiration, they will occupy the upper and posterior part of the pleural cavity, covering but little of the pericardium or diaphragm. If respiration has been full and free in a mature and healthy child, the lungs will be found to fill the pleural cavities, and cover the pericardium in proportion to the vigor and continuance of respiration.

Shape. Lungs which have not respired have sharp edges, while the edges of those which have respired are full and rounded, the gradations in shape depending on the freedom of respiration.

Volume. Before birth the lungs are comparatively small, and their increase in volume depends on the completeness and continuance of respiration.

I do not find any data relating to the absolute or relative volume of the lungs of new-born children as proposed by Daniel. Here, then, is an open field also for investigation, and I would urge that medical examiners make observations on every case of the newly-born, noting the volume of the lungs as determined by displacement of water, and comparing the result with some other measurement, as the length or weight of the child, or, more correctly, its volume. Possibly some definite *relative* standard may thus be obtained. The establishment of an absolute standard, either for the still-born or the living, can hardly be attainable, since it is not reasonable that the lungs of a mature infant, weighing three kilograms, should displace as much water as those of an infant weighing twice as much, under like circumstances.

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[1] Casper, vol. i. page 92.

Color. The color of a lung which has not respired is variously stated by different observers. Beck states it correctly when he says it is brownish-red, resembling the color of an adult liver, but incorrectly when he compares it with the color of the thymus gland. My own dissections find it brownish-red, a little redder than adult liver, not so dark as the fœtal liver, and much darker than the thymus. Gray, in his anatomy, gives the color of the thymus as pinkish-gray. Billard is more correct than Devergie when he states the color of the fœtal lung as exceedingly various, the latter attributing a uniform color to all fœtal lungs. Casper gives the color in general as reddish-brown liver color, with a brighter red at the margins. He also gives the color of infant lungs which have respired as of a dark bluish-red ground color, with bright red circumscribed insular patches, while just as often the bright cinnabar-red forms the ground color, and the dark bluish-red the insular patches. He deduces the following rule: "*It is consistent with experience that every insular marbling of the lungs excludes the idea of a fœtal condition*," and entitles us *to assume as certain the fact of the child having lived after its birth.* The hydrostatic test should be resorted to as supplementary proof.

Two causes may modify the color of the lungs of new-born infants: pulmonary hyperæmia and artificial inflation. If the former have been the cause of death, the lungs will be found to have a dark red color, with bright red patches, bearing a deceptive resemblance to fœtal lungs.

In the latter case, if artificial inflation be successfully performed, the lungs will become spongy and assume a bright crab-red color, which is uniformly extended through their tissue without insular marblings.

Lungs advanced in putrefaction, and also those of children who have died from hæmorrhage, cannot be confounded with fœtal lungs.

If the lungs of a new-born child be inflated by blowing through its mouth, an imperfect expansion may sometimes be produced, which in color will resemble that of perfect respiration; but the change in color only takes place in portions of the lung. Hence we may more easily distinguish between *perfect* respiration and artificial inflation than between *imperfect* respiration and artificial inflation.

The bright color of the fully inflated lung, when artificially done, is not due to the accession of blood into its tissue so much as to the change in refractive power, due to the expansion and thinning of its cell walls, — a change such as may be seen during the inflation of a child's india-rubber balloon.

The action of the *air outside of the lung*, when admitted into the thorax at an autopsy, may change the color to a brighter hue. Hence the color of the lungs should be the first point to be noted in opening the thorax.

In this connection it may not be unworthy of observation that freedom from color-blindness is a matter of as great importance to a medical examiner as to a railway or marine official. It is chiefly on account of the necessity for a due regard to color in pathological appearances that the Prussian code forbids an autopsy by artificial light,[1] and although we are not governed by rigid rules we should doubtless profit by adopting a similar precept.

Consistence. Before respiration the lungs are firm and dense, like the liver, or nearly so. After respiration they feel soft and spongy, and are crepitant. In imperfect respiration, or even in artificial inflation, some parts may be firm and dense, others soft and crepitant.

Suffocatory hyperæmia and the results of *pneumonia* may modify this consistence, the lungs being dark in color, compact in tissue, not crepitant, more yielding to pressure than fœtal lungs, and generally capable of floating in water.

Casper rejects the use of the word atalectasis as unscientific, saying, "The opinion which would elevate this atalectasis into a peculiar disease of the new-born child cannot for a moment be justified." He says also, "I am sure practical men will agree with me that the so-called atalectasis is a mere word, without any real significance" (being employed to designate two conditions, — a fœtal and a diseased, a physiological and a pathological, condition).

Weight. Nearly one hundred years since, Ploucquet proposed that the absolute and the relative weight of the lungs should be taken as a test of live or still birth, supporting his proposition by observations on three children. It seems remarkable that an observer making any pretense to scientific attainments should have attempted to deduce a theory from such a handful of facts, and still more remarkable that an error so gross should have held its ground through nearly a century of treatises and text-books on forensic medicine.[2]

I think the careful observer will agree with Casper in his conclusions from the examination of eighty-nine cases of lungs of new-born infants, and from those of Schmitt, Devergie, Elsässer, and Samson in as many more, that "*Plouquet's test ought to be at once and forever struck out from the list of means employed to prove that respiration has existed.*" The criticism of this foremost of forensic physicians is a just rebuke to all superficial modes of observation.

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[1] Prussian Regulations for Medico-Legal Examinations, General Directions, § 6. Scotch Regulations for Medical Inspectors. General Duties, § 8.

[2] Beck, vol. i., eleventh edition, pages 535, 536. "If the weight of the lungs be 1000 grains and upward, and if their weight compared with that of the body be as 1:40."

We come now to a consideration of the hydrostatic test, or docimasia pulmonalis, a portion of our subject which has for many years been a battle-ground in forensic medicine.

A lung containing air is specifically lighter than water. A fœtal lung is specifically heavier. Therefore, that one must float and the other sink in water cannot be disputed. But it has been denied that their floating is due to their having been filled with air, or that their sinking proves their fœtal condition.

Objections to the test have been made as follows: —

First, that the lungs of a still-born child may float in water from the following causes: —

(I.) Artificial inflation.

(II.) Spontaneous emphysema.

(III.) Gaseous products of putrefaction.

(I.) *Artificial inflation.* I have already alluded to this subject under that of color, an artificially inflated lung being of a bright crab-red, without a trace of mottling. Elsässer's experiments confirm the statement that the stomach and intestines are often inflated in attempts at artificial inflation. The only mode of artificial inflation which would be likely to come to the official notice of the medical examiner is that of mouth to mouth, and that method is the least likely to succeed, although it is occasionally successful so far as simple partial inflation is concerned, without resuscitation.

Lungs which have respired contain more blood, and hence are generally darker in hue than artificially inflated lungs. The latter have air forced into their tissue without blood, and this sometimes so forcibly as to rupture the air cells and produce a condition known as *hyperœria*. They may be distinguished from lungs which have respired by incising into their substance. If they have not respired they will not give vent to bloody froth under pressure. Hence Casper's conclusion that "*when we find a sound of crepitation without escape of bloody froth on incision, laceration of pulmonary cells with hyperœria, bright cinnabar-red color without marbling, and perhaps air in the stomach and intestines, we may with certainty conclude that the lungs have been artificially inflated.*"

In this connection I beg leave to introduce two statements which have some medico-legal significance. In a published lecture by the late esteemed Dr. Buckingham, he says, in regard to the resuscitation of asphyxiated infants, "Apply your mouth to that of the child, and try to inflate the lungs; *you need not fear that you will blow too hard.*"[1]

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[1] Boston Medical and Surgical Journal, 1875, page 188.

On the other hand, in the writings of Eberle I find the following incident related with remarkable honesty and candor: "A few years ago I attended a lady in a tedious and rather difficult labor. The child was still-born, but I nevertheless made some effort at resuscitation. I inflated the lungs in the usual way. The child, however, did not recover. A singular swelling just above the middle of the left clavicle induced me to examine it with the scalpel. The tumor extended into the thorax, in following which I opened the chest. On raising the sternum I found the superior portion of the left lung in a complete state of emphysema, and a good deal of air diffused under the anterior and lateral surface of the pulmonary pleura. With the exception of the inferior portions both lungs were crepitous, and appeared to have been well inflated. That the emphysema was the result of rupture of air cells, caused by the forcible inflation, and not of putrefactive decomposition, I could not doubt, for the child's motions were distinctly felt, both by the mother and myself, up to within two hours of the termination of labor."

(*To be concluded.*)

TOAD-STOOL POISONING.

BY JULIUS A. PALMER, JR., ESQ.

For several years I have devoted my leisure hours to the study of edible and poisonous fungi. I am in debt to members of the medical profession for valuable aid, as well as for reports of cases occurring in their practice. The following example of the operation of the poisonous alkaloid known as *amanitine* may interest your readers. It was not originally intended for publication, but is sent as noted in a book kept by the writer for the record of such cases.

On Tuesday, September 18, 1878, a gentleman called at my office and introduced himself as Mr. W., of Chelsea. After a little conversation, he said that he had been poisoned by toad-stools, became quite faint, and then stretched himself on my sofa. His face was very pale, almost a livid gray; its peculiar ashen shade was noticed by my wife from the opposite end of the hall. His story was that on Sunday evening he picked a quantity of white puff-balls, and also *one* other mushroom. This was a white-gilled, yellowish-topped specimen. The top had warts or scurf on it, and the stem a bulbous base, which latter he cut off, and cooked the remainder. He stewed this and the puff-balls in milk, with the usual seasoning. There was no burning or strange taste to the mushroom, either raw or after cooking. The stew was eaten by a family of five persons, no two of whom were affected exactly alike. The youngest, a boy of eight years, took about a dozen tastes on Sunday night, and ate about the same as the father on Monday morning.

Monday evening, twenty-four hours from first dose, his bowels were active; otherwise no ill effects were felt. The stew acted simply as a generous but mild cathartic.

A daughter, a girl of eleven years, tasted a little on Sunday, and ate her portion for Monday's breakfast. She experienced during the forenoon a slight but very peculiar headache; also some diarrhœa, and no other symptoms.

Another daughter, a girl of thirteen years, tasted it on Sunday night, and ate about the average on Monday. From nine to three, Monday, she had a peculiar, throbbing, severe headache; no other sickness, no nausea, and no diarrhœa.

The mother scarcely tasted any on Sunday, but ate plentifully for breakfast on Monday. The milk left in which the fungus had been stewed, say two gills to a pint, Mrs. W. drank. In less than an hour it operated as a Seidlitz powder, producing the most violent diarrhœa, and (she says) seemed to pass right through her. She had a bad-feeling head for five hours, — not exactly a headache. Wednesday, a little of the same feeling in her head. Otherwise no ill effects.

Mr. W. ate a piece of the stem *raw* on Sunday night, and did not eat quite so much stew as the rest of the family on Monday morning. He felt nothing from the poison until Tuesday morning at one o'clock, or the night prior to his call on me, — say thirty hours after the first dose, seventeen hours after the full meal.

He was taken with colics and violent purging, and went to stool some four or five times in quick succession. When he saw me he was feeling weak, nauseated, with no appetite, and was very pallid. He had occasional pains which (from his description) I thought similar to those of bilious colic. I asked him if either whisky or olive oil was offensive to him when in health. On his answering "No," I gave him a tablespoonful of each mixed in one wineglass, which he took. Before he left the office he said he was feeling much better. He called again on Thursday, and said that he was at that time all right. Tuesday afternoon he had had two or three attacks of the same kind of colic, but so slight that he did not think them worth notice. Wednesday morning, or forty-eight hours after the full meal, he had a peculiar and violent headache, which went off about ten in the forenoon, since which he had felt well. He thought the family would let toad-stools alone in the future.

No remedial measures were used in either of the above instances, except the dose administered by the writer.

Comments on the above Case. — Mr. W.'s symptoms are exactly those of a person poisoned by amanitas eaten with food. The long period prior to attack and the severity of the poison absorbed, which remained in the system long after the fungus was expelled, make his a typical case, agreeing with others known to the writer.

It is not so easy to reconcile the experiences of his wife and children with the ordinary effects of the alkaloid known as amanitine or muscarine. The "tasting all round" Sunday night confuses matters, and forbids one to say how much was due to these small doses and how much to the full meal. But it seems to me that these points are worthy of notice: —

(1.) *Any* powerful drug taken in different proportions by those of widely distant ages and idiosyncrasies will produce varying results.

(2.) Mr. W. ate the fungus raw, and although he ate but little he is evidently very susceptible to the action of the alkaloid. Physical sensitiveness to the effects of tobacco and other narcotics varies widely in different constitutions.

(3.) The case is worse confused by the fact that the stew was of puff-ball, and the two elements remained (mixed) twelve hours before being eaten. The puff-balls contain an anæsthetic, of which little is known. When young, although the smell may be strong, — somewhat like valerian, — no fact in mycology is more certain than that they may be eaten with safety. When old, it is also certain that they have been burnt to stupefy bees; further, that operations have been performed on patients under their influence.[1]

(4.) Mrs. W.'s case, in comparison with that of her husband, is an excellent example of the theory that the more quickly amanitas acts the less serious the results. The longer the elapsed time from ingestion to operation, even if the fungus be expelled, the more of the alkaloid remains in the system.

(5.) The mushroom which poisoned these persons is very common in this State. I therefore append a description of it in general terms: The base of the stem, in entering the ground, has a wrapper incasing it more or less closely. To find this, let the fungus stand, and poke away with care the leaves and dirt around the stem. This stem has usually a collar or ring around it about two thirds of its length from the ground. The gills (or rays underneath the cap), as well as stem, are always pure white. The top of the cap is variable in color, according to the specific member of the genus. The most common variety has a yellow spot in the centre of the disk, shaded off to pure white at the edge. There are also varieties with red, golden, drab, greenish, and pure white skin for the top of the umbrella. But all have warts or scurf on this skin, which formation easily rubs off. Sometimes a specimen may be found where these warts are all gone, but near it may then be seen others just like it which have not lost this mark. By noticing these three marks, *wrapper* at the base, *collar* on stem, and *scurfy* top, persons may avoid the most venomous family of mushrooms. To be sure, some esculent fungi will also be neglected, but this is far better than to eat a poison having no known antidote. The noxious principle is an alkaloid, producing all the symptoms of Asiatic cholera, and ending in delirium and death. Although known since the days of the Roman Empire, physicians have never been able to counteract its influence with any certainty, whites of eggs and the usual remedies proving utterly useless.

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[1] See testimony of Dr. Richardson, as quoted by Dr. T. L. Phipson, in the Popular Science Review (British), 1863, vol. ii., page 26, as to the properties of Lycoperdon giganteum.

I have had several other cases reported to me which have not terminated so happily. Medical men would confer a favor and help to enlighten a dark subject by advising me of any parallel cases that may occur in their practice.

No. 11 Pemberton Square.

RECENT PROGRESS IN MEDICAL CHEMISTRY.[1]

BY WILLIAM B. HILLS, M. D.

TOXICOLOGY.

Conversion of Calomel into Corrosive Sublimate. — Two cases have been observed, presenting all the characters of corrosive sublimate poisoning, after the use of powders composed of calomel and sugar, which had been prepared for some time. As it was possible that the corrosive sublimate in these cases was formed from the calomel by the action of the sugar or some substance contained in it as an impurity, many experiments have been made in order to discover the conditions under which the mercurous is converted into the mercuric compound. Herr Slop[2] finds as the results of his experiments that corrosive sublimate is formed in the presence of hydrochloric acid, organic acids, chlorides of the alkalies, and carbonates of the alkaline earths, the last being specially important on account of the frequency with which calomel is dispensed with magnesia. On examining several specimens of calomel pastilles, having sugar for their basis, and which had been made more than a month, he found some to contain a considerable quantity of corrosive sublimate, while others did not show a trace. He attributes these differences to the fact that the latter had been prepared with a neutral refined sugar, while for the former raw sugars, which are often acid (colonial sugar) or alkaline (beet-root sugar), on account of the hydrate of lime which they contain, introduced in the neutralization and clearing of the juice, had been employed. He thinks that it is by the action of these impurities on the calomel that the corrosive sublimate is formed.

Mr. Langbeck[3] doubts whether well-washed calomel mixed with perfectly dried sugar, and kept in a stoppered colored bottle, will undergo the change into corrosive sublimate, and he has made some experiments which confirm him in this opinion. M. Jolly[1] has determined the amount of corrosive sublimate formed from one gram of calomel after digestion for six hours at a temperature of 40° C. in one hundred grams of distilled water, to which the following additions had been made: —

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[1] Concluded from page 270.

[2] The Dublin Journal of Medical Sciences, March, 1879, page 233, from the Pharm Journal, August 31, 1878.

[3] Ibid.

Substance added.		Amount corrosive sublimate formed.
0.2 gram hydrochloric acid	=	.003 gram.
0.5 " sodium chloride	=	.001 "
2.0 gram citric acid	=	.001 "
0.5 grams sodic hydrate	=	.006 "
1.0 " sodic carbonate	=	.004 "
1.0 " magnesia	=	.003 "

Calcined magnesia and calomel were mixed, each one gram; on washing the powder, after twenty-four hours, with distilled water, .001 gram corrosive sublimate was obtained. Lime has the same effect, but after digesting mixtures of calomel and carbonate of calcium or magnesium with distilled water no change was observed after six hours. Troches of calomel made with pure sugar, free from lime, did not contain a trace of corrosive sublimate after several months. Jolly found that corrosive sublimate was formed in mixtures of calomel with raw sugar, and he also attributes this to the impurities which the raw sugar contains.[2]

Dr. G. Vulpius[3] has arrived at the following conclusions as a result of his experiments on this question: —

(1.) No corrosive sublimate forms in twenty-four hours in mixtures of calomel with white sugar, milk sugar, calcined magnesia, carbonate of magnesium, or bicarbonate of sodium.

(2.) No such formation takes place in three months in mixtures of calomel with calcined magnesia, carbonate of magnesium, and sugar.

(3.) Mere traces of corrosive sublimate are found at the end of three months in a mixture of calomel, bicarbonate of sodium, and milk sugar.

(4.) A considerable quantity of corrosive sublimate forms in the same time in a mixture of calomel, sodium bicarbonate, and cane sugar.

(5.) Corrosive sublimate forms in calomel powders containing calcined magnesia or sodium bicarbonate, if digested with water.

(6.) The formation of corrosive sublimate in mixtures of calomel and alkalies, digested in water for a short time, is not favored by the presence of hydrochloric acid, but, on the contrary, hindered to some extent on account of the neutralization of the alkalies by the acid.

Physiological Antagonism. — Professor Husemann has made a series of investigations on the antagonistic and antidotal action of certain drugs. They relate more especially to the action of chloral as an antidote. He finds[1] by experiments upon rabbits that chloral acts as an antidote to strychnia, diminishing the spasm and preventing death; also to the mixture of strychnous bases, known in commerce under the name of brucin; also to thebaia, one of the opium alkaloids, which at the same time produces tetanus and diminishes sensibility. In poisoning by chloride of ammonium, death resulted more quickly when non-fatal doses of chloral hydrate were given than when fatal doses of either ammonium chloride or chloral alone were employed. This result is doubtless due to the paralyzing effect of both substances on the respiratory centre. The spasms produced by chloride of ammonium diminish after the employment of non-fatal doses of chloral hydrate, and can be wholly suppressed. Still, death occurs. In the case of codeia it was found that the quantity of the poison which could be counteracted by chloral hydrate was considerably less than that of picrotoxin. The minimum fatal dose, or a quantity half as much greater, of codeia could be counteracted by chloral hydrate, but twice the fatal dose could not, while after five times the fatal dose of picrotoxin life could be saved.

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[1] American Journal of Pharmacy, August, 1878, page 387, from L'Union Phar., 134-136. Gaz. médicale.

[2] The London Medical Record, December 15, 1878, from Gaz. méd. de Paris.

[3] Archiv de Pharmacie, April, 1879, page 347.

Chloral acted against calabarin about the same as against codeia. In cases of baryta poisoning it appeared to have no effect. The same was true in cases of poisoning by carbolic acid; the minimum fatal dose still produced death. It was also found that a combination of fatal or non-fatal doses of carbolic acid and chloral hydrate caused a greater fall of temperature than is produced in acute poisoning by either of these substances alone.

Husemann has also made experiments[2] bearing upon a statement of Amagat's, that in poisoning by small quantities of strychnia treatment by alcohol is preferable to that by chloral, on the ground that the quantity of chloral necessary to neutralize small but fatal doses of strychnia is dangerous to life, while such is not true of alcohol. In experiments upon rabbits, Husemann saw death take place after doses of alcohol which Amagat had pronounced safe, and attributes this to the same differences in susceptibility to alcohol which prevail among these animals as among men. The determination of the amount of alcohol necessary in strychnia poisoning is less exact than the determination of the amount of chloral. He found that at times only one and one half the minimum fatal quantity of strychnia was neutralized by alcohol; he advises, therefore, against the employment of alcohol as an antidote when the quantity of strychnia much exceeds the minimum fatal quantity. Chloral acted successfully and with certainty when five or six times the minimum fatal dose of strychnia had been taken, while alcohol was absolutely of no avail when the dose of strychnia was only two or three times the minimum fatal dose. Husemann further found that a single fatal dose of strychnia was counteracted if the animal was first put into a condition of apathy by physostigmin. With large doses of strychnia, after the action of the physostigmin had ceased, the reflex irritability of the animal was scarcely lowered, so that the value of physostigmin as an antidote was less than that of alcohol. The author therefore considers physostigmin perfectly useless as an antidote to strychnia in warm-blooded animals, and the exclusive chloral treatment to be by far the best.

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[1] Centralbl. für die med. Wiss., No. 7, 1879, page 125, from Arch. für exp. Pathol., etc., ix. page 414.

[2] Centralbl. für die med. Wiss., No. 20, 1879, page 365, from Arch. für exp. Pathol., etc., x. page 101.

Husemann also discusses [1] the relation between strychnia and chloral hydrate when the dose of strychnia exceeds the minimum fatal dose by a very little, and when it is more than six times as great. In the former case the occurrence of tetanic spasms may be altogether prevented by chloral hydrate; in the latter the necessary dose of the antidote is too large to be tolerated, and death results from chloral poisoning. The limits of antagonism being thus relatively narrow, he made further experiment with a view to finding some more perfect antidote to strychnia. Bromide of potassium in combination with chloral hydrate, alcohol, and physostigmin were tested and compared with one another and with chloral hydrate. His conclusions in regard to the value of alcohol and physostigmin have already been stated. As regards the bromide of potassium, he found that its addition failed to intensify the action of the chloral hydrate. "Late" convulsions were observed more frequently when the two drugs were given together than when the chloral hydrate was given by itself. This is attributed by the author to some interference on the part of the bromide with the normal elimination of the strychnia through the kidneys.

The practical conclusion drawn from these investigations is that for practical purposes chloral hydrate is to be regarded as the best and safest antidote in poisoning. During the chloral sleep the patient should be watched, and any cessation of the respiratory movements (which is very prone to occur) combated by methodical compression of the thorax.

PROCEEDINGS OF THE BOSTON SOCIETY FOR MEDICAL IMPROVEMENT.

E. G. CUTLER, M. D., SECRETARY.

OCTOBER 14, 1878. *Injury to Ulnar Nerve.* — DR. J. J. PUTNAM reported a case of injury to the ulnar nerve, with resulting atrophy of the muscles supplied by it. The patient was a rowing-man by profession, and prolonged pressure in rowing had caused the injury. Dr. Putnam said that similar cases had been previously reported by a reliable and competent observer.

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[1] The London Medical Record, February 15, 1879, page 51, from Archiv für exp. Pathol., etc., x. 1 and 2.

An Overdose of Gelsemium Sempervirens. — Dr. Goss read the paper, which was published in the Journal for July 3, 1879. In answer to questions, Dr. Goss said that the common name of the plant was yellow jasmine, and it was given in neuralgia of the fifth nerve more especially; also in other neuralgias.

Dr. Bolles mentioned some of the botanical properties of the plant, and said that the root was the part employed in medicine.

Dr. Wadsworth said it had been used of late as a mydriatic.

Dr. Cotting had used it several times with success in neuralgia. Once in a case of cephalalgia the patient took about one hundred drops in the course of the night, and experienced numbness of the extremities, dimness of vision, dropping of the lower jaw, and weakness and decrease of power in the fingers. There was no loss of consciousness. The following curious double vision was complained of: a person in the room was properly located by the patient at a distance, and at the same time appeared in close proximity.

Dr. Green thought that the dropping of the jaw would indicate the special affinity of the drug to the fifth pair, as mentioned by English observers and others.

Dr. Knight had known of a case where a gentleman who by mistake had taken quite a large dose of the gelsemium had disturbance of vision to so great a degree that he was obliged to wear colored glasses for several days.

Ovariotomy. — Dr. J. Homans reported a successful case of ovariotomy and showed the specimen. The case has been published in the Journal.

Fractured Tibia, with Repair, in an Aged Person. — Dr. Hastings reported the following case: A woman eighty-nine years old, while walking from her bed to a bureau, fell upon the floor, and was discovered shortly afterwards with an oblique fracture in the lower third of the right tibia. A silicate of potash bandage was applied, and allowed to remain seven weeks. At the end of that time it was removed, and firm union was found to exist. Notwithstanding the apparently favorable course of the injured leg, the patient gradually failed, and died of exhaustion, three months after the accident. The interesting fact about the specimen was the evidence of the reparative powers of nature at the extreme age of nearly ninety years.

Rupture of the Interventricular Septum of the Heart in Consequence of External Violence. — Dr. Draper presented the specimen, and related the case as follows: Barney McD., a strong, vigorous Irish laborer, thirty-eight years old, was standing on a low platform at the edge of a sewer excavation twenty feet deep. A cart was carelessly backed against the platform, throwing it and its occupant into the cut. It is not known accurately, but it is probable that the man in his fall struck some of the timbers used in supporting the sides of the ditch. He was taken from the bottom of the cut in an insensible condition, and death ensued in about twenty minutes.

The autopsy was made twenty hours after death. Except a compound fracture of the left tibia and fibula, and some superficial abrasions of the forehead, nose, and left cheek, and upon the front of the chest two inches below the middle of each clavicle, there were no external signs of violence.

The pericardium was distended with mingled fluid blood and coagula, the latter being entangled in numerous firm bands, the remains of former pericarditis. Across the inferior portion of the pericardium was a rent four inches long, involving the entire thickness of the pericardium with the upper muscular layers of the subjacent diaphragm.

The interventricular septum presented a rupture involving its entire thickness, and extending in a transverse direction nearly across the whole width of the wall, permitting free communication between the two ventricles.

The lungs showed a few subpleural ecchymoses, varying in diameter from one sixteenth to one quarter of an inch, and most marked in the interlobar fissures. Otherwise these organs were not remarkable.

The peritoneal cavity contained two fluid ounces of bloody fluid. The liver presented four superficial lacerations on the inferior surface of the right lobe near the anterior border. The right kidney lay in a mass of fatty tissue infiltrated with blood; it had on its anterior surface, near the hilum, five small lacerations, half an inch long and one or two lines in depth.

The other organs presented nothing noteworthy.

The sternum was fractured through the centre of its body. The fifth and sixth ribs on the left side were broken just outside the nipple line.

DR. JACKSON considered that the specimen was of extreme interest on account of the extent of the laceration of the heart.

NOVEMBER 25, 1878. *Aneurism of the Cœliac Axis.* — DR. LYMAN reported the case. A negro coachman, thirty years of age, entered the City Hospital October 26, 1878. He had usually been very well. Two months before his entrance to the hospital he began to complain of vertigo, burning at the epigastrium after eating, and tympanites. After a month he was obliged to take to his bed, because of a severe pain which was located in the umbilical region, and was constantly present. The patient stated that there was a "beating" at the seat of the pain, like the "beating of the heart." The pain was "dull and pressing," and accompanied by occasional "cramps;" it was increased by a full inspiration and by motion. Vomiting had been a frequent symptom, with distress after eating. For about a month there had been profuse ptyalism. The pain continued the same, and asthenia was marked. The appetite was fair, but "heavy" food could not be retained. The bowels were constipated. The urine was high colored and scanty. The pulse was 96 and weak. The temperature was normal. A systolic sound was heard loudest two inches above the left nipple and one inch inside of it; it diminished in intensity towards the apex of the heart. The pulmonic second sound was accentuated. Just above the umbilicus and to the left side there was a circumscribed, very tender spot, where a systolic bruit was heard. There was no thrill. A few days later this part of the abdomen was more prominent. It was discovered that when pressure was made on the tumor the ptyalism was increased.

At the autopsy, by Dr. Cutler, the heart and lungs were found to be healthy. The aorta was affected with diffuse chronic enaortitis. There was found to be a large aneurismal dilatation of the cœliac axis, with a distinct wall, forming a tumor about the size of an eight months' fœtal head. The aneurism had in part involved the pancreas, the head being on one side and a portion of the body on the other, while the intervening portion had been absorbed.

Sixteen ounces of bloody serum were removed from the abdominal cavity, and a clot as large as the two fists lay in the left lumbar region; rupture had taken place on the left and anterior portion of the tumor.

Dr. Abbot had seen a case in which salivation was a marked symptom. The patient was very anæmic. Large doses of iodide of potassium were followed by cessation of the symptom; also, a sloughy condition of the parotid gland occurred. At the autopsy, cancer of the pyloric end of the stomach was discovered, which pressed upon all the adjoining parts, and had caused salivation by pressing on the pancreas.

December 9, 1878. *Repair after Excision of the Hip.* — Dr. Cheever showed the specimen and related the history. A boy aged seven entered the City Hospital in November, 1876. He had fallen while jumping off some steps, thirteen months before, and had struck on the right hip. Since then he had complained of pain in the hip and knee. Three months before entering the hospital an abscess pointed in Scarpa's triangle and was opened. When first seen there was eversion, shortening, and flexion of the limb, impaired mobility of the joint, flattening of the nates and tilting of the pelvis, and anterior curvature of the spine. There was also a fistulous tract discharging pus on the anterior aspect of the thigh. As there had been no improvement in several months of treatment, excision was advised, but refused. A month later the head was dislocated out of the socket and rested on the dorsum ilii. Some three weeks afterwards excision was performed, the head of the femur being removed just above the trochanters. At the operation the acetabulum was found to be roughened, and the head of the femur attached to it to some extent. Extension was applied, and the wound dressed with soda and opium wash. The wound did well, but pus burrowed down the leg. New sinuses appeared, at the bottom of which was dead bone. About November 1st the wound of excision was entirely closed. Emaciation was extreme, the legs were fixed in a flexed position, and there was eczema of the genitals. In May, 1878, the patient was discharged. In August he was readmitted, with ulcerations over the thigh and several bed-sores. He also had excessive diarrhœa. He continued to become worse, and finally died early in December, 1878.

At the autopsy, by Dr. Cutler, amyloid degeneration of the spleen, liver, kidneys, vessels of the stomach and intestines, was found. The acetabulum was entirely gone, the opening into the pelvis where it should have been being an inch and a quarter in diameter. The ileum, just above, was carious and thickened, the tuberosity of the ischium carious and much enlarged, while the os pubis and sacrum were healthy. The femur was carious from the great trochanter down to the upper part of the middle third of the bone. The outer compact portion of the bone was absorbed, so that in places it was a mere shell, while in others it was pierced through. The interest of the specimen lay in the fact that the head of the bone was regenerated to a very considerable extent, and was represented by a cartilaginous nodule the size of a cherry.

Optico-Ciliary Neurotomy. — Dr. Wadsworth showed a patient on whom he had performed this operation. The case has appeared in the Journal.

Dr. Derby thought Dr. Wadsworth did not do justice to the old method of enucleation when he said that the mobility of the stump was usually impaired; he instanced a case in Paris where the professor called up the students, and no one could tell which was the false eye. In children, often, when an eye is removed, that side of the face does not grow as well as the other, the bones not seeming to fill out as well. He regarded the operation very favorably himself, and hoped much from it.

Dr. Lyman had seen a man with motion in an artificial eye so good that he, sitting at the same table with the person for months, had not discovered the deformity.

Dr. Wadsworth, in answer to questions, thought that atrophy would be likely to occur, and that the nerves would not therefore regenerate; this was shown by the continued anæsthetic condition of the cornea.

Bone fractured by the Osteoclast to correct the Deformity of Rachitis. — Dr. Cabot showed a tibia fractured by the osteoclast to straighten legs crooked from rachitis. He also exhibited casts of the legs taken before fracture, and a photograph showing the condition afterwards. The patient was four years old, and a loud crack or snap was heard to follow the application of the osteoclast at the time of fracture. No pain or other subjective symptom occurred, and no opiate or treatment other than the application of a plaster-of-Paris bandage was required. The child sickened some three months afterwards, and died of general miliary tuberculosis. The fracture was found to have been transverse in each tibia, and was complete, not a green-stick fracture. Repair had been perfect, but the line of fracture could just be distinguished. Dr. Cabot also showed the osteoclast, which was the instrument already described in the journals, and consisted of a beam of steel bearing two movable stocks, between which protruded a screw armed with a bunter.

Syphilitic Necrosis of the Frontal Bone. — Dr. C. D. Homans showed the specimen and related the case. The patient had had syphilis some six years before, and somewhat later had received a shot wound of the forehead, from which he fully recovered. For two or three years there had been a sinus in the forehead, which was apparently not the result of the local injury. When the patient entered the hospital the sequestrum was exposed to the air over a space an inch in diameter. The sequestrum gradually loosened, and when removed was found to include both tables of the skull in part of its extent. It measured three and a half by two and a half inches. There was pulsation visible in the membranes of the brain for a time, but cicatrization gradually occurred, and the patient was allowed to leave the hospital when the wound was nearly closed.

Dr. Warren had had a similar case, in which the cicatrization had been irregular in forming a central bridge and leaving two lateral sinuses, which on healing left distinct and quite deep holes, which subsequently filled up somewhat.

MEDICAL EXPERT TESTIMONY: WHAT IT IS AND WHAT IT SHOULD BE.[1]

PART I. WHAT MEDICAL EXPERT TESTIMONY IS.

THE committee having in charge the subject of medical expert testimony have considered the topic, and discussed many of the issues which it presents. It has been found too extensive and difficult to be exhausted, or even matured into any satisfactory conclusions, in the time which they have had at their command, and it became apparent to them that it would be impracticable to present any results within the limit allotted them in the arrangements for this occasion. They were compelled, therefore, to the necessity of asking a postponement of what was properly expected of them to a future meeting of the society. In doing this, however, they remark briefly upon the first branch of their inquiry, *what expert testimony is* at present; leaving the consideration of *what it should be* for a subsequent paper.

It is beyond controversy that this important branch of evidence, as used and applied in the courts, is open to many causes of objection and criticism. That it is also subject to many abuses, and is often a hindrance rather than a help in the administration of justice, is unquestionable.

The most conspicuous fault in this class of testimony is its evident partisanship. Even in regard to questions which are scientific in their character, and where it would seem to be possible either to declare and apply positive results, or to admit that such results are not yet reached, experience has shown that men of respectable attainments and sufficient skill array themselves in antagonism, and vehemently support or attack one side or the other of the issue of a cause. Called upon to express an opinion upon an assumed or proven state of facts, and where, weighing and applying the facts with judicial fairness, only one conclusion would appear to be possible, exactly contrary results are given by men who apparently stand equally qualified as witnesses. And it is found that when one or the other of these is tested or pursued by the fairest method of cross-examination, he espouses the cause of the side which has called him; so that it at once appears that he is retained for that side, and comes to support it in all emergencies, disregarding the demands of absolute truth in the desire for personal success or partisan victory in that especial trial. That there are exceptions to this course is true, but in the large majority of cases the experience has been as above described. Those who have been familiar with some of the most important trials in this State have had occasion to see what ought to have been an inquiry to be determined with absolute accuracy as far as science has reached, and left undetermined as to what is beyond, degenerate into a mere personal contest between disputants who were called as experts on different sides, and disposed of as the preferences of jurors inclined to the method or manner of one or the other of the litigant witnesses.

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[1] At the February meeting of the Massachusetts Medico-Legal Society, a committee was appointed, consisting of Attorney-General Marston (chairman), Prof. H. P. Bowditch, M. D., T. H. Tyndale, Esq., A. E. Pillsbury, Esq., Medical Examiner Y. G. Hurd, M. D., and Medical Examiner F. W. Draper, M. D., to report upon the subject of medical expert testimony. At the meeting, June 10, 1879, the committee reported upon the first part of the subject, and further time was granted in which to complete the work.

This has often been because men called to testify have regarded themselves as retained on the one side or the other. The remark of Rufus Choate, that in an action concerning real estate it was first necessary to "retain a surveyor," was a recognition, out of his experience, of the fault and defect of administration of which we have spoken. And it is matter of common knowledge that in other departments of art or science than surveying it is the daily practice to employ, as if retained, expert witnesses, who are expected to take the same relation to the cause in hand as the counsel who are to try it. Witnesses thus engaged have allowed themselves to form opinions upon a partial and one-sided presentation of the facts, and, having formed the opinion, have persevered in defending it after other modifying facts have appeared. The verdict has often depended more on the skill and ingenuity of the witness in maintaining his theory than upon the soundness of his position.

Another mischievous result of expert testimony, as it is, has been the employment of pretenders and charlatans where only men of real learning and just perceptions of duty could aid in reaching correct conclusions. The effect has depended in such cases not so much on what the witness knew as upon what he claimed to know; and if he has been sufficiently conceited and voluble to evade the search of cross-examining counsel, or to confuse unscientific jurors, or, oftener, to commend himself to the prejudices or theories of men who have happened to sympathize with his views, the object of calling him has been attained, and justice has been defeated. And in respect to the large number of cases, constantly in the courts, where physical injuries have been suffered, a dishonest and mercenary plaintiff can often deceive an unscientific physician as to the presence of symptoms, and simulate a case that does not really exist. If the patient has misled an adviser of such a character, the latter will be little likely to admit his errors of diagnosis when he is called to the stand, and may be expected not only to persist in his mistakes, but to exert himself resolutely and as adroitly as possible to hide and overcome them.

And it also frequently happens not only that the witness is employed as a partisan, or is afterwards disposed from pride of opinion to defend what he ought to see is erroneous, but also that his compensation is left to depend upon the result of the trial. It follows, of course, that he has thus a pecuniary interest, which creates a controlling bias. While he appears on the stand as a scientific expert, he is, in fact, practically a party to the suit. He has been such from the beginning. He has examined the subject and constructed his opinions from that stand-point, and, affected by that perversion, the bias and intent which he had at the outset are intensified as the contest goes on. If, as not unfrequently occurs, there are several trials, he inevitably becomes more deeply interested and more perverse. And while the court and jury are looking to him as one who may aid in ascertaining the truth, he is constantly leading them in the other direction.

There are also those employed as experts who, while they do not lack in ability, are wanting in integrity, — who espouse a theory with no regard to conscience or justice. These are not misled by interest, or bias, or error, but intentionally undertake to defend a position with no regard to truth or consequences. Cases of this sort are not frequent, but they are not unknown. When such testimony assists in securing a verdict, the result is a reproach to the administration of the laws.

Fortunately, there is no difficulty in obtaining expert witnesses who either are not obnoxious to any of the complaints which we have made, or are as free from them as the lot of humanity will admit. But there is no system or method in law by which their services can with certainty be applied. The party who is able to pay such compensation as such men are fairly entitled to demand and receive may secure their assistance. Those who cannot do this will resort to some of the ignoble ways which have been noticed. There is no adequate provision of law which regulates or directs the procurement of that which is desirable, or which prevents the employment of that which is detrimental. Whether any legislative enactments are available and can be made efficient to remedy the mischiefs of which your committee has spoken, and what other means of improvement in these matters are practicable, must be left for future consideration.

ESSAYS IN SURGICAL ANATOMY.[1]

This book is made up of a number of essays, many of which have obtained prizes, embodying a vast amount of labor in dissection and collaboration. The first is upon the surgical anatomy and history of the common external and internal carotid arteries, and received the first prize of the American Medical Association in 1878. The second essay is devoted to a like study of the innominate and subclavian arteries, and received the second prize of the association for that year. The author protests vehemently against the practice of tying the common carotid for lesions of the external carotid or its branches, the death-rate after ligature of the former being forty-one per cent., and after ligature of the latter but four and one half per cent. This rule holds only when there is one half inch between the lesion and the bifurcation of the primitive trunk. He endeavors to prove that ligature of the innominate is not a justifiable operation, and that ligature of the subclavians, more especially the right, in their first surgical divisions is also unjustifiable. He believes also that the mortality of sixty-five per cent. following ligature of the subclavian arteries in their third surgical divisions on account of hæmorrhage, and the mortality of forty-three per cent. after ligature of these vessels in their third divisions on account of aneurism, are unnecessarily great. As an example of the amount of work done by the author, we would mention one hundred and twenty-one dissections of the common carotid and its branches made by himself, and a table of nearly eight hundred cases collected by him. The latter makes the work an exceedingly valuable one for reference. Eighty-seven dissections were made of the tibio-tarsal region, the results of which show the importance of preserving as much of the external plantar artery as possible, as it is this branch which gives the main supply to the heel flap in amputation through the joint. The farther forward the incision, which runs under the heel, is brought, the less danger there is of sacrificing the branches of this vessel. There are also some notes on the obturator artery and the vessels of the hip-joint.

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[1] *Essays in Surgical Anatomy and Surgery.* By John A. Wyeth, M. D. New York: William Wood & Co. 1879.

The industry of Dr. Wyeth cannot be too highly praised in producing a specimen of work founded upon most painstaking and careful observation, which should serve as a brilliant example to younger observers.

THE DISCOVERY OF ANÆSTHESIA.

Dr. Sims has seen fit to reopen this discussion by bringing forward again the claims of Dr. Crawford W. Long, of Georgia, in an article recently contributed to the *Virginia Medical Monthly.* These claims are founded on statements made by Dr. Long, many years after the introduction of anæsthesia, to the effect that as early as 1842, and once or twice in subsequent years, he had employed ether in a minor operation. The general ground taken by Dr. Sims is that all claimants have about an equal right to the credit, and should be mentioned in the order of their use of ether ; that to the surgeons of the Massachusetts Hospital the world owes the immediate and universal use of anæsthesia of surgery. Nevertheless, a handsome engraving of Dr. Long accompanies the article, with the title of " Discoverer " appended.

The answer to this statement seems to us very simple. From whom did the surgeons of the hospital get this discovery which they introduced to the scientific world ? Certainly not from Long, whom they nor any one else had ever heard from on this subject. Certainly not from Wells and Marcy, who came on to Boston with their gas, tried to introduce it, and failed several years previously. Certainly not from Jackson, who used it as a toy, like the students of Harvard College ; or the boys and girls at the quilting parties in Georgia, when a negro boy was soundly etherized on one occasion ; or the good people of Burlington, Vt., as far back as 1822, who talked of its use in pulling teeth. They obtained it from no other than Morton, whose recklessness, energy, and enthusiasm infected Dr. Warren, and persuaded him to give it a trial. The inevitable result followed : jaws were taken out, legs were cut off, during an unbroken sleep. A few weeks later all Europe was ablaze with the discovery. What Dr. Long had at that time done in the South we may gather from the comments of the *New Orleans Medical Journal*, which in the January following says : " That the leading surgeons of Boston could be captivated by such an invention excites our amazement." " Why, mesmerism, which is repudiated by the savants of Boston, has done a thousand times greater wonders."

Judge Story says : " An imperfect and incomplete invention, resting in mere theory, or in intellectual notion, or in uncertain experiments, and not actually reduced to practice, is not and cannot be patentable under our acts." " He is the first inventor . . . . who has first perfected and adapted the same to use." Until Morton had shown that ether was applicable to all cases, and could maintain oblivion during the acutest pain, anæsthesia had clearly not been discovered, and it was he, and he alone of all the claimants, who persuaded the world to use it. We merely indicate here a few of the arguments brought forward repeatedly by a high and able authority on this question for the benefit of those to whom the subject is not an old story.

We are asked by Dr. Sims to petition Congress for an appropriation for Long's family "and his co-workers." Why should the profession pay this tribute to one whose neglect to impart his knowledge to others it is difficult to regard in any other than an unfavorable light?

Dr. Long's experiences are interesting, but they possess an antiquarian rather than a professional or a historic value.

MEDICAL NOTES.

— We notice with pleasure the recent arrival in Boston of Prof. H. W. Acland, M. D., F. R. S. Dr. Acland is Regius Professor of Medicine at Oxford, and has recently been elected president of the British Medical Council for a second term of five years. Dr. Acland has not been in the United States since 1860, when he accompanied the Prince of Wales. He will find many new objects of interest as well as many old friends.

— The members of the Essex North District Medical Society made an excursion on the Merrimac in the steamer General Bartlett, on August 12th. The steamer stopped at various points on the river for the accommodation of members. The excursion terminated with a picnic at Eagle Island. The committee of arrangements consisted of Drs. Crowell, Huse, and Snow.

— Dr. Wm. O. Moseley, Jr., who recently lost his life on the Matterhorn, graduated form Harvard Medical School last year. He was an excellent student, and as house pupil at the Massachusetts General Hospital acquitted himself with credit. He was an enthusiastic mountain climber, and several years ago made a tour through Switzerland, during which he accomplished many difficult ascents. He was repeating his tour this summer, having become an expert mountaineer, and, in fact, was a member of the London Alpine Club. His over-confidence seems to have proved his destruction. The summit had been successfully reached, and on the return the most difficult part had been passed, when, in spite of the warnings of his party, he loosened the rope which bound him to them. In vaulting over a rock his foot slipped, and he slid rapidly over the snow below. This had become hardened by the frost, and his frantic efforts to stop himself were of no avail. His body was found two thousand feet below, stripped of clothing and almost unrecognizable. He was buried in the church-yard at Zermatt, by the side of victims of former accidents on this treacherous mountain.

— Dr. G. H. Lyman is at present in Paris with his wife; he will return to this city in September. — We regret to learn that Dr. Buckminster Brown is quite ill with an attack of pleurisy at his summer residence at Princeton. — Dr. Geo. J. Engelmann, of St. Louis, was in this city last week; he has recently recovered from a severe palmar abscess, produced by poisoning in a midwifery case, and resulting in the loss of a portion of one finger. — Dr. H. I. Bowditch has so far recovered the use of his leg as to be able to go to Washington to attend to duties connected with the National Board of Health. — Dr. Geo. C. Shattuck has returned from Europe greatly improved in health, where he has resided for the past year.

— The meeting of the British Medical Association was held during the week ending August 9th at Cork. Dr. Denis C. O'Connor presided. Among the strangers present was Charcot, and from this country we find the names, Dr. Turnbull, of Philadelphia, Dr. Byford, of Chicago, and Dr. Beard, of New York. Dr. Alfred Hudson delivered the address in Medicine on Laennec: His Labors and their Influence in Medicine. Mr. William S. Savory spoke in his address in Surgery on the Prevention of Blood Poisoning in the Practice of Surgery.

— Dr. William Rimmer, the late lecturer upon art anatomy at the Museum of Fine Arts, died at South Milford, Mass., on August 19th. He was born in Boston, February 20, 1816. His taste for art led him, in 1863, to abandon the practice of his profession at Quincy, Mass. His success as a sculptor and his valuable lectures on art anatomy are well known to many New England physicians.

NEW YORK.

— Still another case of yellow fever has occurred in connection with the bark Wallace, whose stewardess, it will perhaps be remembered, died of the disease some time since at the Presbyterian Hospital, although the vessel arrived from Havana as long ago as July 2d, and was supposed to have been thoroughly disinfected. On the passage one of the crew was taken with yellow fever, but recovered, and on her arrival at this port Dr. Vanderpoel kept the bark at quarantine for fifteen days, during which time she was fumigated twice. While in quarantine the cargo was discharged, and as she was in a bad condition her timbers were scraped. At the end of the fifteen days, no new cases of yellow fever having in the mean time developed among the crew, she was personally inspected by the health officer, and allowed to come up the bay. It was some time after this that the stewardess was attacked with the disease, although she had not been feeling well for a week or two before it commenced, and it was not until just before her death, which occurred on the 29th of July, that the true nature of the affection was suspected.

As soon as Dr. Vanderpoel learned of this case he ordered the vessel back to quarantine. While she had been lying in the East River, off Williamsburg, however, she was visited several times by a young man in the employ of the firm from whom she was receiving a cargo of oil, and not long after his last visit to her he was seized with yellow fever, of which he died in the course of four or five days. The result of this case will probably be that all sailing vessels from infected ports will be included in the interdict which forbids steamers arriving from such to come to the city at all, these being obliged to remain at quarantine during their whole stay at New York, and to load and unload there. It is a case of considerable interest, as showing the pertinacity with which yellow fever infection will sometimes cling to a ship, even after the most diligent and careful efforts have been made to eradicate it.

— During the week ending August 16th the number of deaths reported in the city was five hundred and three, and of births five hundred and eighty-four. It is not often that the reported number of births exceeds that of the deaths so much (although the *actual* number doubtless does), especially at this season, and the comparatively low rate of mortality is gratifying, as showing an exceptionally good condition of the public health for this time of the year, when the maximum death-rate is apt to be reached.

— The infant mortality from June 7th to August 2d, in comparison with the entire number of deaths, was as follows: —

Week ending	Total mortality.	Under 1 year.	Under 2 years.	Under 5 years
June 14th.	495	100	141	183
" 21st.	493	183	223	266
" 28th.	649	243	307	365
July 5th.	751	368	447	488
" 12th.	698	297	362	407
" 19th.	772	340	412	461
" 26th.	600	244	296	327
August 2d.	636	244	295	337
Totals.	5034	2019	2483	2839

Thus, of all persons who died, fifty-six per cent. were children under five years, forty-nine per cent. children under two years, and forty per cent. children under one year of age.

— In a house at Ogdensburg, New York, where five children were ill with diphtheria, three kittens which were permitted to be with them from time to to time were taken with the disease, and all died on the day after the attack commenced. A post-mortem examination showed the presence of diphtheritic membrane in abundance in their throats.

LITERARY NOTES.

Geo. O. Rumbold & Co., of St. Louis, have just published the report of a committee appointed by the St. Louis Medical Society to inquire into the Relations of the Yellow Fever Epidemic of 1878 to the City of St. Louis; also a report by the chairman of the committee, Dr. Ford, on the Meteorological Conditions and Ætiology of Yellow Fever.

Dr. D. G. Brinton has purchased the plates and rights of publication of The Physicians and Surgeons of the United States. It contains biographical sketches of twenty-seven hundred contemporary regular physicians. He proposes to issue a second edition with additions and corrections. The plates will be omitted, thus reducing considerably the price of the book. Dr. W. B. Atkinson, permanent secretary of the American Medical Association, the editor of the former edition, will edit this one also.

SHORT COMMUNICATIONS.

OBITUARY.

Dr. Jerome Van Crowningshield Smith, formerly editor of this journal, died on August 20th at Richmond, Mass. He was born in Conway, N. H., July 20, 1800. His father was a physician. He received a degree from Brown University in 1818, and a medical degree from Williams College in 1822. In 1823 he started the *Medical Intelligencer*, the first weekly in this country. He held the position of editor and publisher of this journal for three years, and then sold it to Dr. Coffin. In 1828 the *Intelligencer* and the *New England Quarterly* were united to form the Boston Medical and Surgical Journal, of which Dr. Smith became editor in 1834. In 1854, having been elected mayor of Boston by the "know-nothing" party, he associated Dr. George S. Jones with himself in the management of the JOURNAL. In February, 1855, Dr. Jones withdrew, and was succeeded by Drs. William W. Morland and Francis Minot, with Dr. Smith as nominal chief editor. In August, 1856, Dr. Smith severed all connection with the JOURNAL. At the time he first became editor, Mr. David Clapp, the well-known printer and publisher, succeeded Mr. John Cotton as publisher. Not long after, he started the *Medical World*, which had a short existence. As a young man he was professor of anatomy and physiology in the Berkshire school, and late in life professor of anatomy at the New York Medical College. He was port physician of Boston from 1826 to 1849. About the time his son commenced the practice of medicine he moved to New York, where he has since lived. Although a man of no great ability, he could turn his hand to almost anything. For instance, it is said of him that as a college boy he was the champion drummer of his class. Later in life he was alternately anatomist, historian, naturalist, politician, a writer of books of travel, sculptor, editor, and orator. He kept a whole set of the Encyclopædia Britannica on his office table, and nearly every page was said to have a book-mark in it. He was a successful modeler in clay, and Dr. John Reynolds possesses a bust of himself made by Dr. Smith. He also produced busts of several other prominent Bostonians. Although a busy and active man, his practice was never a large one, but he nevertheless acquired considerable property. During the war he went to New Orleans, where he accepted the position of acting inspector-general, with the rank of colonel, and he was the chairman of a commission appointed by Banks to consider the sanitary condition of the city. He has been, we understand, an invalid for several years, suffering from some affection of the urinary organs.

LUNACY REFORM.

MR. EDITOR, — In your issue of July 31st there appeared an article entitled Lunacy Reform, which greatly misrepresents the state of affairs in relation to asylum reform in New York, and which does incredible injustice to members of our profession here. Of course you have not the space to publish the petition referred to in your article, but I trust you will allow me to say a few words in reply.

The petition will soon be published in such form that it can be had by all who are interested in the welfare of insane patients, and then your readers can satisfy themselves that it contains no "malice," refers to no one person, but that it only aims at obtaining a searching inquiry *under oath* respecting the medical management of asylums. The document was drawn up by a regularly appointed committee of one of our most active medical societies (the New York Neurological Society), and was approved, section by section, by the society at a stated meeting. In connection with one phrase in your article it is not uninteresting to add that Dr. Hammond had nothing to do with the wording of the petition, and did not see or hear it until it was read at the society meeting.

The summons of the legislative committee to the signers to appear as witnesses was simply an impertinence. The petition is not a formal accusation, but it was drawn up in order that a committee might know what lines of inquiry to follow. We, the signers, were not witnesses, but taxpayers, who expressed a formal desire to have the mode of management of asylums investigated because the general repute of this management is bad. Many of the points involved in the discussion are of such a nature that no one outside of asylums can know about them, — in the legal sense of knowing.

The so-called inquiry made by Messrs. Goodwin and Goefel has been pronounced a farce by the gentlemen who did go to Albany. They restricted testimony to personal testimony, and excluded from their scrutiny (?) the worst asylums, namely, those under the control of cities and counties. They questioned (?) superintendents *privately* and without notice to us.

Again, your author, I hope unconsciously, confuses the issue greatly by his complaints of the half insane, etc. Our petition has nothing to do with these *popular* complaints against asylums; we are willing to allow our superintendents an unlimited *humanity*, but we don't believe in their knowledge of cerebral anatomy and physiology, or in their capacity to make a medical or surgical diagnosis.

Some of the signatures to the petition have been called in question in medical and non-medical journals. That, we all know, is true of most petitions. Some of our signers may have withdrawn their names, and others may have signed without due knowledge, yet it remains as the absolute truth that no names were put on the petition by any kind of fraud. A perfectly sufficient proof of this lies in the composition of the committee which was charged with obtaining signatures. This committee was composed of Drs. T. A. McBride (chairman), E. C. Harwood, E. C. Seguin, W. A. Hammond, E. C. Spitzka, J. G. Kiernan, Landon C. Gray, and W. G. Morton. Who is your correspondent or informant who accuses one of these gentlemen of "fraud"?

About Professor Draper's name I can't speak with personal knowledge, but with reference to President Barnard's I can. He *did* sign the petition, and signed *my* copy after having it in his possession three days! His subsequent denial is a remarkable example of amnesia. Not long ago Dr. Barnard admitted to me that he had no objection to the petition further than as it assailed one person, a friend of his. Hence he wished his name withdrawn.

Lastly, I would say that I sought but few signatures, and the following are the names of nearly all I obtained: President Barnard, Prof. Willard Parker, Dr. E. R. Squibb, Prof. John T. Metcalfe, Prof. T. M. Markoe, Dr. Robert F. Weir, Dr. Andrew H. Smith, and Dr. Edward Seguin. Will you, Mr. Editor, or will any unprejudiced person, say that a petition put forth by an incorporated scientific medical society, and signed by such men (if *only* by these) should be treated with contempt and misrepresentation, and be made the object of an Albanian investigation farce for the protection of men whose medical ability is questioned? Yours very truly, E. C. SEGUIN.

NEW YORK, *August* 15, 1879.

[We sympathize heartily with attempts to better the condition of our insane asylums, and we have no doubt that New York asylums are open to improvement, but we deprecate the spirit which has crept into the present movement. — ED.]

A NEW ADJUVANT IN THE TREATMENT OF WRITER'S PALSY.

BY JAMES J. PUTNAM, M. D.

IN two cases of impaired writing power coming under this general head, which have lately been under my care, I have found that the use of the McKinnon or stylographic pen secured the patients a good deal of facility and comfort.

The muscles which preëminently tire in writing are, as is known, those of pen-prehension. It is often impossible, in spite of painful effort, to keep the point of an ordinary pen applied at the proper angle against the paper, and when it is sought to obviate the need of doing this by the substitution of a pencil the necessity of bearing on it with some force to make it write soon entails fatigue. In the use of the patent pen both these evils are done away with. If a highly colored and easily flowing ink is employed there is no temptation to exert pressure, and the pen may be allowed to roll freely between the fingers.

OFFICIAL LIST OF CHANGES OF STATIONS AND DUTIES OF OFFICERS OF THE MEDICAL DEPARTMENT U. S. ARMY, FOR THE WEEK ENDING AUGUST 22, 1879.

FORWOOD, W. H., major and surgeon, McPherson Barracks, Atlanta, Ga. Granted leave of absence for one month, with permission to apply for two months' extension. S. O. 128, Department of the South, August 13, 1879.

HORTON, S. M., major and surgeon. Granted leave of absence for two months. S. O. 42, Division of the Atlantic, August 12, 1879.

GIRARD, J. B., captain and assistant surgeon, Fort Davis, Texas. Granted leave of absence for one month on surgeon's certificate of disability, with permission to leave limits of the department. S. O. 168, Department of Texas, August 8, 1879.

MOFFATT, P., captain and assistant surgeon, assigned to duty at the new post in the vicinity of Lake Chelan (W. T.), to which post he will proceed at the end of the current month. S. O. 96, Department of the Columbia, July 28, 1879.

FITZGERALD, J. A., captain and assistant surgeon. Died at Columbia, Pa., August 11, 1879.

REPORTED MORTALITY FOR THE WEEK ENDING AUGUST 16, 1879.

Cities.	Population estimated for July, 1879.	Reported Deaths in each.	Annual Death-Rate per 1000 during the Week.	Percentage of total Deaths from				
				The Principal " Zymotic " Diseases.	Diarrhœal Diseases.	Diphtheria and Croup.	Scarlet Fever.	Pneumonia.
New York	1,085,000	503	24.17	41.15	26.84	2.39	1.79	3.58
Philadelphia	901,380	346	20.02	28.04	21.39	1.16	1.16	2.02
Brooklyn	564,400	216	19.95	31.48	23.61	5.09	.46	1.39
Chicago	—	223	—	43.50	28.25	5.83	4.04	1.34
St. Louis	—	171	—	33.92	21.05	1.75	1.75	—
Baltimore	365,000	141	20.14	29.08	16.31	.71	3.55	—
Boston	360,000	173	25.05	46.24	39.31	2.89	.58	4.05
Cincinnati	280,000	106	19.74	33.02	16.98	1.89	7.54	2.83
New Orleans	210,000	68	—	7.35	1.47	—	—	—
District of Columbia	160,000	89	29.00	23.60	16.85	—	1.12	4.50
Cleveland	—	56	—	46.43	30.36	5.36	3.57	1.79
Pittsburgh	—	67	—	50.75	23.88	13.43	2.99	4.48
Buffalo	—	—	—	—	—	—	—	—
Milwaukee	—	51	—	43.14	33.33	9.80	—	1.96
Providence	101,500	35	17.98	37.14	25.71	—	11.43	—
New Haven	60,000	29	25.20	17.24	10.34	—	—	3.45
Charleston	57,000	25	22.87	28.00	20.00	4.00	—	—
Nashville	27,000	13	25.11	30.77	23.08	—	—	—
Lowell	53,300	17	16.63	41.18	35.29	—	—	—
Worcester	52,500	12	11.92	33.33	33.33	—	—	—
Cambridge	50,000	22	22.95	31.82	31.82	—	—	—
Fall River	48,500	39	41.93	56.41	33.33	—	17.95	—
Lawrence	38,200	23	31.39	26.09	17.39	—	—	8.69
Lynn	34,000	12	18.41	41.67	25.00	8.33	—	8.33
Springfield	31,500	8	13.24	62.50	37.50	25.00	—	—
New Bedford	27,000	18	34.76	55.55	38.89	—	11.11	—
Salem	26,400	12	23.70	58.33	58.33	—	—	—
Somerville	23,350	11	24.56	18.18	18.18	—	—	9.09
Chelsea	20,800	10	25.07	20.00	—	10.00	—	—
Taunton	20,200	8	20.65	37.50	25.00	—	—	12.50
Holyoke	18,200	13	37.25	15.39	15.39	—	—	—
Gloucester	17,100	7	21.34	71.43	57.14	—	—	—
Newton	17,100	7	21.34	57.14	57.14	—	—	—
Haverhill	15,300	13	44.30	46.15	30.77	15.39	—	—
Newburyport	13,500	8	30.90	50.00	50.00	—	—	—
Fitchburg	12,500	14	58.39	64.29	42.86	—	—	—

Two thousand five hundred and fifty-six deaths were reported, showing a decrease of 190 from the previous week: 930 from the principal infectious diseases, 636 from diarrhœal diseases, 296 from consumption, 76 from diphtheria and croup, 59 from scarlet fever, 56 from pneumonia, 55 from typhoid fever, 40 from whooping-cough, 28 from bronchitis, 26 from malarial fevers, 15 from measles, 15 from cerebro-spinal meningitis, 11 from erysipelas, two from small-pox (New York). From *typhoid fever*, New York and St. Louis reported 12 deaths, Baltimore eight, Philadelphia five, District of Columbia three, Chicago, Cincinnati, and Fall River two, Boston, Cleveland, Pittsburgh, New Haven, Charleston, Nashville, Lowell, Lawrence, and Gloucester one. From *whooping-cough*, New York ten, Philadelphia six, Boston four, Brooklyn, St. Louis, and Cleveland three, Cincinnati, Pittsburgh, and Fitchburg two, Chicago, District of Columbia, New Haven, Lawrence, and Taunton one. From *malarial fevers*, New York 12, St. Louis and New Orleans four, Chicago three, Baltimore two, Charleston one. From *measles*, New York eight, Chicago and Pittsburgh three, Brooklyn one. From *cerebro-spinal meningitis*, Chicago three, New York, Baltimore, and Cincinnati two, Philadelphia, District of Columbia, Lynn, New Bedford, Chelsea, and Fitchburg one. From *erysipelas*, New York five, Philadelphia, Brooklyn, St. Louis, Boston, Cincinnati, and Pittsburgh one. The death-rate of whites in District of Columbia was 18.27; colored 44.6. Yellow fever was increasing in Memphis. The infectious diseases were much less fatal, due to a great decline in diarrhœal diseases; typhoid fever continues to increase; diphtheria, scarlet fever, and measles were more fatal than in the previous week, as was consumption also. In the nineteen cities of Massachusetts, with an estimated population of 879,450, there was a decline in diarrhœal diseases.

The first part of the week was hot, the latter three days cooler. The meteorological record for the week in Boston was as follows: —

Date.	Barometer.	Thermometer.			Relative Humidity.				Direction of Wind.			Velocity of Wind.			State of Weather.[1]			Rainfall.	
	Mean.	Mean.	Maximum.	Minimum.	7 A. M.	2 P. M.	9 P. M.	Mean.	7 A. M.	2 P. M.	9 P. M.	7 A. M.	2 P. M.	9 P. M.	7 A. M.	2 P. M.	9 P. M.	Duration.	Amount in Inches.
Aug. 10	29.998	61	75	56	69	72	67	69	NW	E	S	13	10	4	F	F	C	—	—
" 11	30.082	64	75	54	76	61	58	65	NW	E	SE	4	12	4	C	C	C	—	—
" 12	30.122	70	79	59	78	72	87	79	W	E	S	1	9	6	C	F	C	—	—
" 13	29.998	73	87	63	79	41	70	63	SW	SW	W	9	18	12	C	F	F	—	—
" 14	29.777	73	85	66	84	50	71	68	SW	SW	W	12	20	10	F	F	C	—	—
" 15	30.086	62	71	61	71	61	71	67	N	E	S	16	10	5	F	F	O	—	—
" 16	30.068	56	61	53	88	93	100	93	E	SE	E	5	16	19	O	R	R	—	.48
Week.	30.019	66	85	53				72	SW			1423 miles.						15.16	.48

[1] O., cloudy; C., clear; F., fair; G., fog; H., hazy; S., smoky; R., rain; T., threatening.

The mortality from yellow fever in Memphis continues to increase. One hundred and forty-two cases and forty-eight deaths were reported for the week ending August 23d; previously returned, 543 cases and 131 deaths. No recent cases are reported in New Orleans.

For the week ending July 26th, in 149 German cities and towns, with an estimated population of 7,615,565, the death-rate was 24.1 (previous week 25.1). Three thousand five hundred and twenty-six deaths were reported: diarrhœal diseases 536, consumption 436, acute diseases of the respiratory organs 282, diphtheria 89, scarlet fever 63, whooping-cough 54, typhoid fever 46, measles 36, puerperal fever 18, typhus fever two, small-pox none. The death-rates ranged from 8.4 in Metz to 36.1 in Chemnitz; Munich 30.8; Dresden 18.8; Berlin 32.2; Hamburg 23.9: Hanover 12.3; Cologne 20.1. In the same week, Vienna 24.3; Paris 22.6; Brussels, 20.7.

For the week ending August 2d, in the 20 English cities with an estimated population of 7,383,999, the death-rate was 18.3 (principal zymotic diseases 2.9) against 17.6 of the previous week. Two thousand five hundred and ninety deaths were reported: 188 from diseases of the respiratory organs, 112 from measles, 92 from scarlet fever, 86 from diarrhœa, 80 from whooping-cough, 28 from fever, 11 from diphtheria; the deaths from small-pox declined in London to 4 (in Dublin also to 4). Measles, whooping-cough, and diarrhœa were more fatal, scarlet fever less so, than in the previous week. The death-rates ranged from 11.9 in Portsmouth to 21.1 in Plymouth; London 19.4; Bristol 13.7; Birmingham 17.3; Liverpool 16.2. For the same week, Edinburgh 17, Glasgow 16, Dublin 23, Geneva 15.

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THE GYNÆCOLOGICAL SOCIETY OF BOSTON. — The next regular meeting of the society will be held at the Medical Library Rooms, 19 Boylston Place, on the first Thursday of September, at 10.30 o'clock, A. M. Paper by H. A. Martin, M. D., of Boston, upon Vesico-Vaginal Fistula as a Result of Instrumental Interference in Labor. Report upon a Case of Tumor of Vagina complicating Miscarriage, etc., by the same. Profession invited.

HENRY M. FIELD, M. D., *Secretary.*

BOOKS AND PAMPHLETS RECEIVED. — Reports to the St. Louis Medical Society on Yellow Fever. By W. Hutson Ford, A. M., M. D., etc. St. Louis: George O. Rumbold & Co. 1879.

Remarks on Ovariotomy, with Relation of Cases and Peculiarities in Treatment. By Nathan Bozeman, M. D., Surgeon to Woman's Hospital of the State of New York. (Reprint.) New York: William Wood & Co.

Ein Beitrag zur Biologie der Bakterien. Von Dr. med. Louis Waldstein aus New York. (Virchow's Archiv.)

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LECTURES.

THE COMMUNICABLE FEVERS AND THEIR TREATMENT.[1]

A LECTURE DELIVERED AT BELLEVUE HOSPITAL, NEW YORK.

BY WILLIAM H. THOMSON, M. D.,

Professor of Materia Medica and Therapeutics in the Medical Department of the University of the City of New York.

I.

Gentlemen, — All the exanthemata have features in common, which render their treatment somewhat similar; and this circumstance also facilitates their study. Hence in investigating them from a therapeutical point of view, there are certain general principles which the student ought to master before he proceeds to devote his attention to the treatment of the special diseases grouped under this class. Let me now, therefore, ask you to notice two or three points, which should always be borne in mind in this connection.

In the first place, it is impossible for us to cut short the course of these diseases, and no method of treatment is capable of curing them. Hence you should never lose sight of the fact that your patient must necessarily remain sick for a certain number of days, do what you will; and it is very important that you should be fully impressed with the truth of this at the very outset of your study of medicine. It is the complications of such affections which afford the field in which the skill of the physician is to display itself. Each one has its special complications, and of course, in order that you may be able to deal with these successfully, you should be thoroughly posted in regard to them.

Again, these specific affections are not like rheumatism, gout, or any form of disease which is generated in the body, but are peculiar in the fact that they are all derived from extraneous sources. Moreover, each has its own laws of origin, development, communicability, etc.; and in considering the group, both in general and in particular, I would suggest that you should always keep before your minds the ideas connected with the word *seed*, as I think this will serve to give you the clearest comprehension of the subject.

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[1] Reported for the Journal.

Each seed, as you know, has its own time for incubation, its own time for development, and its own time for getting through these developments. Then comes reproduction, and, lastly, we have the fact that the plant as a rule (and especially in the lower forms of vegetable life, such as the fungus) cannot grow again in the same soil. None of you, I think, can fail to be struck with the resemblance which all this has to the characteristics of the diseases in question. While dwelling upon this point, let me give you a word of warning, and that is to beware of incautiously claiming to have had extraordinary success in the treatment of any of these affections. Every kind of crop, you must remember, varies according to many different circumstances, and so it is with such diseases. The same ones have peculiar ways of behaving in certain years, owing to special conditions. Thus scarlatina may one season be characterized by very severe nephritis, and the next may be accompanied by scarcely any. Last year, for instance, I saw more nephritis in connection with it than ever before; while this year, although the disease has been exceedingly prevalent, the renal complication has not been nearly so marked. So in typhoid fever, intestinal hæmorrhage is in some years a prominent feature, and in others it is not; while all the books will tell you that in some seasons this, as well as other diseases, is of a very grave type, and in others of but little severity.

Another point of importance is that it is not from the seed that you will be able to judge of what kind of result is to be expected, but from the character of the soil in which it becomes implanted. One indisputable fact is that as in the vegetable world a great many seeds fall by the way and come to nothing, so in every community that is attacked by any epidemic a great number of individuals will escape entirely, because they do not offer an appropriate soil for the disease germ to develop in. Even before the discovery of the preventing power of vaccination, small-pox did not attack a very large proportion of the white race, at least in localities where it prevailed, and yet this is the most contagious of all diseases. So many persons escape scarlatina, typhoid fever, and other similar diseases when they are prevalent; and hence we conclude that the kind of soil which a patient presents is always to be taken into consideration.

Now as to the matter of treatment. Since I have been practicing medicine I have had a larger experience with these fevers than with any other kind of disease. Thus at the outset of my medical career (in Syria) I had about one thousand such cases a week to look after for two years. Of course, it was far too large a number to study with advantage; and this over-abundance of cases, I may remark in passing, is one of the snares of hospital practice. As there were too many to do justice to, I used to select a certain number of suitable patients upon whom to test various special plans of treatment, and then leave the rest to a kind Providence, chlorate of potash, and milk diet. In other words, I simply adopted the expectant method of treatment in the great majority of instances. No one, I believe, who has had much experience with these diseases will ever attribute any special success to any peculiar plan of procedure, unless he takes into consideration (1) the characteristics of the epidemic in the particular year in which his cases occur, and (2) the inequality of the disease, as regards severity, etc., in different cases. The seed bears fruit according to the character of the soil in which it falls.

This brings me to speak of the feature, which sometimes characterizes the continued fevers, known as *malignity*, and it is a most important one. In most epidemics of small-pox, scarlatina, and the rest there are certain cases which we designate as malignant, and in which the patients really seem to begin to die before any treatment can have its effect upon them.

Now, what do we mean by the term malignant? Is this malignity distinct in different diseases, and presenting special indications in each, so that there can be no general rule in reference to treatment? Fortunately, this is not the case. One thing is common to all malignant cases, whatever the variety of the disease, and that is *septicœmia.*

If we once understand this, the matter becomes greatly simplified. In plain terms, then, the bad cases in all these affections are due to the development of a poison in the blood, and septicæmia means the genesis in the system of a specific poison, which acts with greater or less force according to the dose present. A poison, you must remember, is a different thing from a virus, which really belongs to the *seed.* A poison in sufficiently large doses will kill, while in smaller ones it causes certain injurious effects short of this, as is seen in the case of alcohol, for instance ; but there is no such thing as a dose of a virus. Again, time is required for a virus to pass through various stages ; while a poison, on the other hand, acts instantaneously, and according to the quantity introduced into the system. It is, in fact, a chemical agent. Septicæmia is a condition which is generated in the system. Its poison has been separated or distilled from the body and used for the purpose of inoculation, and the effects produced by it have been found to correspond with the amount inoculated. The discoveries concerning septicæmia have proved a very important advance in medicine, and we are indebted for them largely to Burdon Sanderson in England and certain distinguished investigators in Germany.

Next let us inquire just what this poison does when present in the system. It has been found that it has a chemical action, and causes a precipitation of fibrin. In consequence of this, a more or less complete paralysis of nerve centres (and especially the ganglionic) is produced, and from this results paralysis of muscular structures, like the heart, for instance. Hence those adynamic symptoms met with in certain cases of all these fevers are all similar in character, and are all accompanied by definite lesions which can be readily recognized after death. Physiologists have now determined that there is no such thing as fibrin in the blood in health; so that when it is present during life it is always pathological. It may also occur as the result of post-mortem change, or in blood that has been drawn from the living subject (after its separation from the body). In septicæmia, however, there is a real disorganization of the blood, and, in consequence, an ante-mortem formation of fibrin in the system.

Now since septicæmia is the cause of the majority of deaths in the continued fevers, the indication is undoubtedly to treat them by means of antiseptics given internally, so as to prevent its occurrence. At the present time the whole profession is working in this direction, — the aim being, not to cut short the disease, but to avoid what are commonly known as typhoid symptoms. The remedies most useful in the accomplishment of this end are chlorine, permanganate of potassium, chlorate of potassium, and bromine. My own opinion is that this prevention of septicæmia is the main indication in the treatment of these fevers. Hence I do not trust to the expectant plan, but adopt a decided course from the very commencement of the attack. I believe that bromine is the most powerful antiseptic that can be taken into the blood, and I am in the habit of employing it in large quantities. Labarracque's solution is also an excellent remedy for the purpose mentioned. The carbolic acid group of agents, on the other hand, is of no service whatever in this respect. Therefore, even for disinfecting the apartment of the patient, I would greatly prefer preparations belonging to the chlorine group, which I have seen act efficiently in many instances, while I have never seen the other class have the slightest effect in preventing the spread of disease. I have recently had in my practice an instance in which the usefulness of bromine in this capacity was admirably shown. In a family in which there were eight children, besides a number of adults, two of the children were taken in one day with scarlet fever, both having been exposed to the same infection at the same time. None of the other children had ever had the disease, and the same was the case with their governess. The two sick ones I had placed in a back room on the second floor, and from the first employed bromine as my only disinfectant. Smith's solution was the form in which it was used, and I had this put in every room in the house and all the halls, exposed in shallow saucers. The mother attended the sick children herself, and did not leave their chamber. No other member of the family took scarlatina, but in a short time I found, to my horror, that one of the six unaffected children was ill with diphtheria. I therefore expected that all the others would be attacked, but, fortunately, this was not the case. One other of the six took it, and that was all. Both diphtheria patients were put upon the bromine treatment, and both recovered.

It has been frequently noticed that scarlatina and diphtheria are very apt to prevail together, and it has been found that when the latter ensues upon the former in the same individual the case is always very serious. During the present year I have often seen the two diseases in the same house at the same time ; but in the instance now under consideration the diphtheria never crossed to the scarlatina, or the reverse. The only other individual in the family, beside the two children mentioned, who took scarlet fever was a laundress, who had had the disease before, and therefore considered herself proof against it. Her attack was a very light one. The above narrative therefore exhibits very strikingly, I think, the efficiency of bromine as an antiseptic agent.

The carbolic acid group acts admirably wherever there is any purulent matter to be dealt with ; but in the diseases in question the chlorine group, as I have previously remarked, is far the most serviceable. In the year 1866 chlorine unquestionably put a stop to an epidemic of cholera in the work-house on Blackwell's Island. There are other agents, like quinine, salicylic acid, etc., which are poisonous to septicæmic action ; but they also destroy life if given in sufficient quantities to effectually accomplish the desired end. The action of chlorine and its congeners is wholly different from that of the above, being entirely chemical in its nature, and directly due to the marked affinity which this group possesses for hydrogen. In the process which goes on a considerable quantity of oxygen is set free, and this in its nascent state is also an excellent antiseptic.

Now how shall we give bromine internally ? The best way is in the form of Smith's solution. From four to eight drops of this to a fluid drachm of water should be administered in about half an ounce of sweetened water. One great advantage that it has over many other agents is that it does not at all disturb the stomach ; and I have seen this demonstrated over and over again in cases of diphtheria. When all other remedies were vomited, the bromine solution would be retained, — at least after the first or second dose. The principal difficulty about giving bromine or chlorine is that they are so sharp to the taste. Hence they should be well diluted, and their acidness disguised by sweetening. This sweetening should not be ordered to be compounded with the prescription, as such a mixture will not keep, but ought to be added at the time of administration. When Labarracque's solution is used, it should be given in doses of half a drachm to a drachm, mixed with half an ounce or an ounce of sweetened water or milk, every two or three hours. It answers quite well in diphtheria and scarlet fever, but in my opinion is inferior to the bromine. The chlorinated water of the United States Pharmacopœia often serves a good purpose, and is especially useful in typhoid fever. This kind of treatment should be adopted from the beginning, because you never can tell beforehand whether you are going to have a scepticæmic case to deal with or not.

I will next speak briefly of the local manifestations in these diseases, and particularly in diphtheria. For the treatment of membranous deposits in the fauces there is nothing at all equal to the pumping of water into the throat in large quantities; of course, allowing it to run out again all the time. The best instrument for doing this is the ordinary Davidson's syringe. Children are sometimes a little frightened at the method at first, but soon get accustomed to it. It is advisable in such cases to turn the nozzle first against the cheek, and then gradually upon the back of the throat. As soon as they have gotten used to it the little patients are anxious to have it kept up as long as possible, as the measure is exceedingly grateful to them. Unless there are membranes upon the back part of the tonsils, it is far superior to any form of gargle or other local application. I now recall a case of typhoid fever in this hospital in which there was a diphtheritic complication, which I have not the slightest doubt was brought to a successful issue by means of this agency. When the method was commenced the man's throat was already beginning to be necrotic, and he was altogether in a very critical state. The water pumping, however, was kept up regularly until all signs of diphtheria had almost or entirely disappeared, after which he made a good recovery. This procedure is a thing that the friends of the patient can easily carry out, and I am convinced that it is of the greatest possible service. In diphtheria I would recommend that at first a considerable quantity (say a pint) of an infusion of some very light astringent should be pumped into the fauces, and very weak black tea, flavored with a little peppermint, for instance, is one of the best that can be used. After this a pint of lime-water may be employed in the same way, and finally another pint of the tea. Then the whole can be repeated as often as necessary. Lime-water is not only an excellent disinfectant, but has also the property of dissolving the membranes. It can always be produced by home manufacture, and the easiest thing to make it with is oyster shells. A special advantage of this method of irrigation is that with it there is no danger of doing any injury to the mucous membrane, which is always a serious matter in diphtheria, as it is almost sure to result in an extension of the membranes.

In suitable cases, where the patient is old enough, bromine may be applied directly to the membranes three times a day in the form of Smith's solution, either pure or diluted with an equal quantity of glycerine. A better way in adults, however, is to apply the bromine by means of a bulb medicine dropper, which you will find a very convenient method, as it enables one to carry the solution to any spot desired more readily than in any other way. The best instruments for the purpose are those curved at the end.

THE EVIDENCE OF STILL-BIRTH.[1]

BY MEDICAL EXAMINER S. W. ABBOTT, M. D.

(II.) *Spontaneous* or *Congenital Emphysema.* This condition can hardly be said to have been clearly proved in any single case, unless those of Chaussier may be termed emphysema. But in his cases, which were apparently the effect of severe and artificial labor, the presence of an experienced obstetrician is implied, which would exclude them from the domain of the medical examiner.

Schmitt's case is doubtless one of putrefaction ; so also that of Meyn ; while in that of Michaelis there is no reasonable evidence that the child was still-born. In addition to these cases, Casper in his late editions gives special notice to that of Hecker, in which both lungs floated in water, without a trace of putrescence. This case is one of the most noteworthy on record, as being one where all the conditions of intra-uterine respiration were present, namely, an early rupture of the membranes, a tedious labor, and frequent examinations of the os uteri, thereby admitting air freely to the womb.[2]

After a careful review of all these cases, Casper cautiously lays down the following principle as a modification of a previous one : "*That not one single, well-observed, and incontestable case of emphysema, developing itself spontaneously within the lungs of a fœtus born without artificial assistance, is known; and it is not therefore permissible in forensic practice to ascribe the buoyancy of the lungs of new-born children brought forth in secrecy and without artificial assistance to this cause.*"

(III.) *Putrescence.* It cannot be denied that fœtal lungs may become buoyant from this cause, but it is also true that the diagnosis between the appearance of lungs that have breathed and those in which gas is developed by putrescence is a matter presenting little difficulty to an expert.

In the first place, observation shows that the lungs resist putrefaction longer than the brain, the liver, the spleen, the stomach, or the intestines. If, then, putrescence is not present in these organs, we may infer that the floating of the lungs is not due to this cause. The phenomena of putrescence begin by the appearance of gaseous vesicles or bullæ of small size on the serous surface of the lungs. These are followed at a later period by a loss of lustre in the serous covering and a dark gray color, with putrid odor. The more advanced the stage of decomposition the more difficult is the process of distinguishing between fœtal lungs and those which have respired, when both have become buoyant from putrescence.

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[1] Concluded from page 301.

[2] For other cases of vagitus uterinus, see Edinburgh Medical and Surgical Journal, vol. xxxiii., page 215, and London Lancet, July, 1834.

In one of my own cases (VII.) the right lung was found to fill the pleural cavity, the left not so completely; the right was bright red, the left reddish-purple; both were crepitant, and studded with bullæ of decomposition on their serous surface. These vesicles were carefully punctured, and the lungs readily floated in water. In this case the brain had entirely disappeared, and the stomach and a portion of the intestines had become an undistinguishable mass.

In this connection the experiments of a recent Italian observer, Professor Gioranardi, are worthy of note. His conclusions are as follows: —

(1.) The lungs of a child which has breathed sink in water if allowed to remain eleven or twelve days immersed in it.

(2.) When the entire body of a child which has breathed is placed in water, the chest being closed, the lungs will continue to float up to their entire destruction by putrefaction. When the cavity of the chest is opened so that the water may have free access to the lungs, the lungs will sink after fifteen or twenty days' immersion of the body.

(3.) When the body of a new-born child is found cut to pieces, the chest opened, and the lungs exposed (to the action of water?), an expert must not infer that the child has not breathed because the lungs sink in water.

(4.) By drying the lungs, an expert may determine whether the sinking in water is due to their *not* having breathed. If they have breathed and have been several days immersed in water, they will float after drying. If they have not breathed, they will in the dried state again sink.

(5.) In reference to this condition, an expert may sometimes form an approximate judgment of the time which has elapsed since the death of the new-born child. Spontaneous submersion takes place in eleven to fifteen days, and some days earlier if breathing has been imperfect, or if the lungs are cut in pieces, or are in a putrefied state.[1]

It should be stated that these conclusions appear to be derived from observations on five cases only, and are therefore not well enough established to be admitted as principles in forensic practice. Professor Gioranardi promises another paper based on more extended observations.

Having noticed those objections which relate to the floating of unrespired lungs, let us briefly consider the opposite class, those which relate to the sinking of lungs which have respired. Lungs of a new-born child which have once breathed may sink from the following causes: —

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[1] Rivista sperimentale de Med. legale, 1877.

(I.) *Imperfect Respiration.* In a case of this sort some portions of the lung will be found to float, if it be cut to pieces and each part be tested.

(II.) *Suffocatory Hyperæmia and Hepatization.* In both these instances, as before, some fragments will be found to float. If incisions be made into the lungs and they be deprived of their blood by pressure, they may be made to float, while no amount of pressure will make fœtal lungs float. The incisions should be made beneath the surface of the water, and in the case of lungs which have breathed air bubbles will be disengaged and rise to the surface.

Cases of either sort, however, are so rare that but a few isolated instances can be found recorded among the writings of forensic physicians of the largest experience.

Evidence derived from the Circulatory Organs. The closure and obliteration of the foramen ovale, the ductus arteriosus, the ductus venosus, and the umbilical vessels are facts of greater interest to the physiologist than to the medical examiner, since some of these ducts, if not all, must of necessity be found pervious in all new-born infants. Their closure usually takes place in from one day to three weeks or more, and generally in the following order: first the umbilical vessels, then the ductus venosus, the ductus arteriosus, and lastly the foramen ovale. In accordance with these facts, the examination of these vessels at the medico-legal dissecting table is no longer required by the Prussian code.

Almost the only inference of value which can be drawn from them is as follows: if they be found closed, the child has probably been born alive, but their patent condition is no proof that it was born dead.

Abdominal and Pelvic Organs. It is hardly worth noticing that the full bladder and rectum were once held as proof of still-birth. But even the most careless observer must know that both may be evacuated into the liquor amnii before birth. We should not, however, neglect an examination of these organs, and the same should be said of the stomach and colon. The presence of starch, sugar, milk, and other foreign material in the stomach, and of any fæcal matter other than meconium in the colon, would lend weight to the hydrostatic test in establishing the fact of live birth.

Both the absolute and the relative weight of the liver have been proposed as tests of live and still birth, based upon the fact of its decrease in weight after the birth of the child. But the diminution in size is so gradual and the variations in absolute size so great, as shown by the observations of Professors Bernt, Elsässer, and Orfila, that no reliance can be placed upon it as a test. Both the Prussian and the Austrian regulations ignore it, and Casper condemns it as unworthy of the slightest consideration.

In conclusion, the medical examiner may infer that a child has lived during and after its birth: —

(1.) When the diaphragm reaches only to the fifth intercostal space.

(2.) When the lungs more or less completely fill the thorax.

(3.) When the ground color of the lungs is broken by insular marblings.

(4.) When, by careful experiment, the lungs are found to be capable of floating.

(5.) When a bloody froth exudes from the cut surfaces of the lung on slight pressure.

(6.) When the air cells are visible to the naked eye.

These proofs, complete as they are, may be strengthened by the cicatrization of the umbilicus, the scaling of the epidermis, the closure of the fœtal ducts, the size of the osseous nucleus of the inferior femoral epiphysis, the existence of milk, sugar, starch, or medicines in the stomach, determined by the appropriate chemical tests, and by the presence of fæcal matter other than meconium in the lower intestines.

ANATOMICAL EVIDENCES OF ABORTION.[1]

BY MEDICAL EXAMINER C. C. TOWER, M. D.

Medico-legally regarded, the term abortion is not restricted in its signification, as in obstetrics, to the expulsion of the contents of the gravid womb previous to the close of the sixth or the commencement of the seventh month, — the limits of the period variously assigned for the viability of the fœtus, — but is applied indiscriminately to all cases in which pregnancy is terminated before the expiration of the full term.

The appearances on dissection will obviously differ very much according to the character of the abortion, whether natural or violent; the period of pregnancy at which it occurred; and the length of time which has elapsed since it took place. I shall confine my attention to the appearances after death shortly following criminal abortion. Externally the body would of course present similar indications to those existing before death. Many obstacles, however, which interfered with a full and careful physical examination when the woman was living are now wholly removed. Changes due to pregnancy, which are manifest in the form, size, color, and consistency of the breasts and abdomen, are sometimes quite striking, and at once impress the examiner very decidedly in respect to the conditions which may be found to exist internally. Such was my own experience when, years ago, a young practitioner, I was called upon to conduct an examination of the body of the victim in the "Hersey murder" case, the young woman having died from strychnia poisoning, and her womb containing a three months' fœtus.[1] After the contents of the womb have been expelled, however, the changes attending involution are often so rapid that unless the fatal follows the abortient act in quick succession many of the proofs of the event, both externally and internally, obtained from the autopsy are either wholly wanting or of doubtful reliability.

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[1] Read before the Massachusetts Medico-Legal Society, June 10, 1879.

After criminal abortion we often find the external genitals swollen, turgid, ecchymosed, and separated by clots of blood proceeding from the vagina. Discolorations, bruise-marks, and other indications of injury not infrequently appear on various parts of the body, some of which may have been produced after death. But marks of violence externally or internally would furnish no absolute proof of miscarriage, but merely point to a probable cause if proof were discovered. If the use of drugs be suspected, the presence of abortifacient medicines in the alimentary canal would confirm the suspicions previously entertained that attempts to procure abortion had been made in this manner. The specific toxical effects of such medicinal substances should be sought for only on account of their supposed causative agency through reflex influence. Among the effects to be looked for may be mentioned rectal engorgement from irritant purgatives, of which aloes and hellebore are chief, and renal congestion from powerful diuretics, such as savine and tansy.

Positive proof of abortion obtained at the autopsy must, however, be limited to the *signs of recent delivery found in the uterus itself and in its appendages, notably the ovaries.* In ovular abortion no reliable evidences can be discovered from an examination of these organs. The appearances would be almost identical with those dependent upon menstruation. The general character of them would be such as is due to sanguineous engorgement. "During menstruation," says Orth, "the uterus is enlarged (to the size of a hen's egg) ; its substance is soft and juicy ; the mucous membrane is swollen, succulent, reddened from the engorgement of the blood-vessels, and covered with a more or less pure or watery blood, according to the duration." The now generally accepted view of menstruation is that during the physiological turgidity of the uterus which attends ovulation the net-work of capillaries which surrounds the utricular glands situated in the mucous membrane becomes deeply injected, and an exfoliation of the epithelial lining of the uterine cavity takes place, laying bare the ruptured walls of the minute vessels from which an exudation of blood occurs. We can readily conceive that the interior of the uterus after an early abortion, especially if the decidua had been expelled with the ovum, would present appearances very like what must exist in the unimpregnated organ during the occurrence of the phenomena just described. If, on the other hand, the decidua had been retained, its membranous shreds could not be readily distinguished from patches of dysmenorrhœal casts. If the blood within the cavity of the womb be clotted, that circumstance would be suggestive that abortion had recently occurred; but menstrual blood is by no means destitute of the property of coagulation, although it coagulates with difficulty if the function is normally performed. If the flow is profuse, as in menorrhagia, it clots readily.

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[1] Report of the Case of George C. Hersey, indicted for the Murder of Betsey Frances Tirrell. A. Williams & Co. 1862.

The extreme vascular condition of the ovaries and Fallopian tubes during menstruation and early pregnancy would be essentially the same, and, consequently, also in early abortion. Even in the Graaffian follicles no changes diagnostic of abortion during the first month of pregnancy could be discerned, their ruptured walls and contained coagula merely indicating that ovulation had recently been going on, and that the process was completed by the discharge of ova.

When abortion occurs at the middle period of pregnancy reliable evidences of the event can usually be detected. These consist in characteristic appearances of the interior of the womb, in alterations in the size, structure, form, and weight of that organ, and in the development of a corpus luteum of pregnancy in one or both of the ovaries. The cavity of the uterus at this period will be found to contain clots of blood or sanguineous fluid, and its surface to be covered with flocculent or pulpy remains of the decidua. The site of the placental attachment — one of the most unequivocal signs of recent delivery — is indicated by a dark brownish, somewhat elevated patch, the surface of which is described as rugous, unequal, and disorganized or actually suppurating. It also presents "several large, semilunar or valvular openings," — the remains of uterine sinuses, — and is further distinguished by the "small number of flocculi" compared with that of the adjacent surface. If portions of the placenta remain attached, they may be recognized under the microscope by the peculiar structure of that organism.

If abortion occurred at any time during the last three months of gestation, the usual signs of delivery at term would be more or less manifest. The external evidences already alluded to would be more unequivocal. On account of the greater size of the fœtus we should expect to find more marked traces of recent birth at the outlet, as indicated by increased swelling and turgescence of the labia, and perhaps by fresh laceration of the posterior fourchette. If forceps or other instruments to aid delivery had been employed, marks of injury to the soft parts, even rupture of the perinæum, might be discovered. Internally, the greater dilatation of the vagina, the more open state of the cervix, the larger size of the womb, the more extensive traces of placental attachment, and the more copious coagula would leave no opportunity for doubt concerning the occurrence of the recent event. Marks of internal violence, such as punctures or incisions of the uterine walls, could hardly be mistaken at any stage of pregnancy for lesions in the unimpregnated organ caused by operative surgical interference in the removal of morbid growths. "An important point in the diagnosis of a recent labor at full term, or of a premature labor," says Orth, "is an orange discoloration of the mucous membrane of the neck of the uterus, which is often present."

Considerable conflict of testimony seems to prevail among authorities with regard to the existence of the mucous membrane of the uterus, not only after abortion, but also after delivery at the full period. The doctrine enunciated by M. Cruveilhier, and concurred in by Professor Simpson and many other distinguished writers on obstetrics and gynæcology, is that after normal delivery, "except just at the inner surface of the cervix uteri, there is no mucous membrane at all, but the muscular tissue is everywhere exposed." According to this view, the decidua is entirely expelled with the fœtal membranes and placenta during the third stage of labor, leaving the inner surface of the uterus denuded, but "to be covered by a new membrane" during convalescence. The distinguished physiologist, M. Robin, while agreeing with M. Cruveilhier that the original mucous membrane is converted into decidua and thrown off at the termination of labor, promulgated the new doctrine that the muscular tissue is not wholly laid bare, but is covered with a delicate layer of newly formed mucous membrane which has been developing during the latter half of gestation. Dr. Priestley, in his admirable Lectures on the Development of the Gravid Uterus, substantially agrees with M. Robin concerning the formation of a new mucous membrane during the last months of pregnancy, but cannot concede that the decidua is entirely removed at the time of delivery. From his personal researches in the human subject he deduces the following conclusions concerning the uterine mucous membrane during and immediately following pregnancy: —

(1.) "After an ordinary labor, terminating in the separation and expulsion of the secundines, the muscular substance of the uterus is nowhere laid bare. . . . .

(2.) "When the membranes are thrown off in the third stage of labor, a portion of the decidua remains attached to the uterine surface as a protection against external agencies. It is not, however, strictly correct to assert that the original mucous membrane may be found everywhere lining the interior of the uterus after delivery; that is true only with regard to the cervix. . . . .

(3.) "A new mucous membrane begins to be formed in the later months of pregnancy between the decidua and muscular coat. It undergoes a rapid development after the uterus is emptied of its contents;

and as it is gradually perfected it assumes the function of the original mucous coat."

Leishman, in his System of Midwifery, appears to contradict himself somewhat on this point. In one place he declares that "the separation of the whole mucous membrane of the uterus under the name of *decidua* . . . . always occurs . . . . in women at the moment of delivery."[1] He also speaks of "the exfoliated membrane, and the raw, bleeding surface which its removal necessarily involves . . . . in women who have died shortly after delivery."[2] Elsewhere, in describing the puerperal condition of the inner surface of the cavity of the womb, he asserts that "remains of the decidua vera or of the subjacent textures from which it has been stripped are clearly to be made out."[3] On the whole, he seems to adopt the views advocated by M. Robin.

Still different opinions are maintained by other observers. They are, however, mostly modifications of those already given. Dr. Matthews Duncan, for example, believes with M. Robin and Dr. Priestley that the muscular coat of the uterus is not laid bare, but dissents from them in the doctrine of the formation of a new mucous membrane before delivery. He advocates the opinion that "the residuary decidua forms the mucous lining of the uterus" after parturition. Playfair, in his Science and Practice of Midwifery, represents that "according to Friedländer the decidua is divisible into two layers, the innermost being formed out of the connective tissue of the mucous membrane; the deeper seated, in contact with the uterine walls, being formed out of flattened or compressed gland ducts." Spiegelberg, on the same authority, "believes that the portion of the decidua that is expelled is the more superficial" of these two layers, "while the deeper or glandular layer remains attached to the walls of the uterus." The preponderance of opinion, therefore, seems to be that after delivery occurring in the latter months of pregnancy or at the termination of utero-gestation there remains behind a delicate layer of tissue which possesses germinal principles for the development of the new membrane. However this may be, the question still remains unsolved whether a uterine mucous membrane can be detected after an early abortion.

(*To be concluded.*)

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RECENT PROGRESS IN THE PATHOLOGY AND TREATMENT OF DISEASES OF THE NERVOUS SYSTEM.

BY JAMES J. PUTNAM, M. D.

Treatment of Epilepsy by trephining the Skull. — Dr. M. G. Echeverria, of New York,[4] gives an interesting analysis of one hundred and forty-five cases of epilepsy, due to injury or disease of the skull and its appendages, treated in this manner, including seventy-five not hitherto tabulated. Of these cases, ninety-three (64.13 per cent.) are reported as having been cured; eighteen (12.41 per cent.) benefited; five (3.44 per cent.) unmodified; while twenty-eight (19.30 per cent.) died in consequence of the operation. The statements as to recovery would be of more value could the periods during which the cases were under observation have been more generally given; but it can hardly be doubted that there were many recoveries, and less than twenty per cent. of deaths, a proportion which, in the present days of antiseptic precautions, would probably be lessened. These figures are certainly of interest, especially in connection with the author's statement that he has never met with an instance of spontaneous cure of this class of cases, supposing, of course, that the results of the injury persisted. The osseous lesions present in the successful cases were of the most varied kinds, sometimes nothing more than thickening and condensation of the bone. Some of these cases were operated on as late as ten, fifteen, even twenty, years after the injury. For surgical and other details we must refer to the original.

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[1] American Edition, page 93.

[2] Ibid.

[3] Page 280.

[4] Arch. générales de Med., November and December, 1878.

Dr. H. Agnew[1] reports a further case of trephining for epilepsy with failure of memory, resulting from a gun-shot wound received during the war. The wound of the operation healed rapidly, and at least for the short time that he was under observation the patient remained well. It may be mentioned in this connection that Echeverria also considers the presence of mental symptoms as not necessarily counter-indicating the operation.

Dr. E. C. Seguin, of New York,[2] gives the results of the careful *topographical study of the skull* with relation to the convolutions of the brain, together with an interesting statement of the *surgical aspects* of the modern doctrine of the *localization of cerebral lesions.*

Differential Diagnosis of Spinal-Cord Affections; Pathology of Lead Palsy. — In the last "report" [3] a brief sketch was given of the classification of spinal diseases as generally accepted at that time, and the doubt raised by Friedreich and Lichtheim as to the spinal origin of progressive muscular atrophy was presented. Since then the discussion with regard to this and kindred points has widened, and is of interest as concerning the general question of the differential diagnosis of spinal diseases.

In the "report" for 1876 [4] reference is made to a valuable paper by Dr. Remak, of Berlin, in which the peculiar distribution of the paralyses among the muscles of the arm in lead palsy is made, through arguments from analogy, to bear evidence in favor of the spinal origin of that disease. This argument has recently been reinforced in another able and exhaustive article by the same diligent observer.[1] Different types of spinal amyotrophic affections are there shown to exist, characterized by peculiarities in the distribution of the paralyses and atrophies, muscles which have similar *functions* becoming diseased together, though supplied by different nerves. Of these the chief are the "upper-arm type" and the "fore-arm type," the latter including, among others, the usual variety of lead palsy (supinator longus, etc., not involved). The actual demonstration of disease of the spinal cord in these cases of lead palsy is, however, but scanty, though Vulpian had found colloid and vitreous degeneration and simple atrophy of some of the cells of the anterior cornua in one case of lead palsy in man, and diffused subacute myelitis in the spinal cord of a dog poisoned with carbonate of lead.

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[1] Philadelphia Medical Times, September, 1878.

[2] New York Medical Record, 1878.

[3] The Journal, vol. xcix., page 241.

[4] The Journal, vol. xciv., page 354.

Recently two observations have been reported, by Friedländer [2] and by Eisenlohr,[3] where the spinal cord was found perfectly intact, while the nerve trunks were markedly diseased, and in Friedländer's case the spinal nerve roots contained many very small (newly-formed?) fibrillæ. Remak, in a hasty discussion of Friedländer's paper, which appeared just as his own was going to press, suggests that perhaps spinal changes had been present, but had passed away, as the first step in the recovery of the patient.

This may be true, but the other alternative is also possible, namely, that spinal lesions are not an essential part of the disease; the reason that certain muscles are attacked, while others, supplied by the same nerve, escape, being that the affected muscles are peculiarly susceptible to the poison.

This view, in short, simply transfers the exaggerated susceptibility from special nerve cells of the spinal cord to special muscles.

It would still remain unexplained how a paralysis of myopathic origin could so exactly simulate, in its distribution, paralyses acknowledged to be of spinal origin (especially "infantile paralysis," in cases where the arm is involved), but it is not inconceivable that this should happen; and in fact the distribution of the atrophic changes in progressive muscular atrophy, which is now believed by many to be primarily a muscular disease, is sometimes not unlike that which characterizes lead palsy and infantile paralysis involving the arm. It should be said that the case of Lichtheim, of progressive muscular atrophy without spinal disease, is not considered by all observers as a perfectly typical case of the disease [4] usually indicated by that name. At all events it is evident that more attention must be paid in the future than heretofore to the possibility of primary myopathic origin in many cases of this class, whatever may be the limits to be finally assigned to them.

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[1] Archiv für Psychiatrie, etc., 1879, vol. ix., page 510. Ueb. die Localisation atrophisches-Spinallähumngen u. spinaler Muskelatrophien, v. Dr. Remak, Privat Docent.

[2] Virchow's Archiv, vol. lxxv., page 24.

[3] Centralblatt für Nervenheilkunde, etc., 2 Jahrgang, page 100.

[4] Virchow's Archiv für Psychiatrie, etc., vol. ix., page 369.

"*Disseminated Neuritis.*" — Under this name Dr. J. Gros[1] proposes to group together a number of cases which have been variously classified as "acute ascending paralysis" (Landry), "progressive paralysis" (Graves), "atrophie nerveuse progressive" (Jaccoud), "acute progressive neuritis" (Eichhorst), etc.; the pathological bond of union between them being the absence of serious lesions of the spinal cord or its membranes (such as might sometimes fairly be expected from the symptoms), and the presence of disseminated inflammation of the peripheral nerves. It is, of course, not impossible that a partial reclassification of these cases will have to be made at a future day, the "ascending paralysis" of Landry, in particular, deserving perhaps to form a *group* by itself, or to be classed definitely among the spinal diseases; but as at present defined the characteristics of the disseminated neuritis are as follows: —

There are three varieties: (1) the acute, usually fatal in the course of three weeks, often before the muscular atrophy commonly met with has had time (it is inferred) to develop itself; (2) the subacute, ending either in partial recovery or in death in the course of six months to a year, and liable, in the former event, to relapse; (3) the chronic, the most common form, lasting many years, but liable, also, to burst out into the acute variety at any time. The onset of the disease is commonly rapid, and not infrequently marked by a short febrile attack.

The first characteristic symptoms are formication and violent pain, confined to the distribution of certain nerves, usually of the lower extremities, often attended by perversion or loss of the cutaneous sensibility in the same parts. The muscles supplied by the affected nerves become more or less rapidly paralyzed, and atrophy usually supervenes at a later period.

These symptoms may give place to a more generalized paralysis, which progresses upwards from the lower extremities to the arms and trunk, and kills the patient rapidly by asphyxia (ascending paralysis of Landry?), seeming to paralyze in some way the functional activity of the spinal cord; or they may attack one limb, or rather one set of nerves after the other, with more or less reference to symmetry, and remaining liable to be arrested at any point in their progress. The affected nerves become tender, but, at the outset, near their peripheral extremities alone.

The absence of contractures, of exaggerated reflex excitability, of recto-vesical disorders, exclude the various forms of myelitis; but the differential diagnosis between disseminated neuritis and localized spinal meningitis is sometimes difficult, and might be impossible. Furthermore, even if not primarily involved, the spinal membranes, and even the spinal cord, are liable to suffer secondarily, as is well known, in cases of inflammation of nerves, or both parts may be simultaneously but separately attacked.

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[1] Contribution à l'Histoire des Névrites, Paris, 1879.

Dr. Gros admits that it is difficult, at present, to define accurately the boundaries of the disease of which he treats, and with regard to the acute ascending paralysis of Landry the feeling has been especially strong in favor of looking upon it as a spinal affection; but the paper is important, as leading pathologists to pay more attention than they have done to the condition of the peripheral nerves in doubtful cases.

Tetanoid Paraplegia (*Spastic Paraplegia*). — A few years ago another "systematic" disease of the spinal cord was believed to have been made out through the brilliant generalizations of Erb and of Charcot, designated pathologically as sclerosis of the lateral columns, though, as was admitted from the outset, no sufficient post-mortem proof of the diagnosis had been furnished. The main characteristic symptom was spasmodic rigidity of the muscles of the legs, with exaggerated reflexes, especially the "tendon reflexes," but without marked alteration of sensibility or recto-vesical troubles, the whole making up a group of symptoms not very infrequently met with. Within the past year grave doubts have been thrown on the propriety of referring these symptoms to a systematic, symmetrical lesion of the lateral columns, since it appears that they may be present with various forms of spinal disease. The most important of these criticisms are contained in papers by Professor Leyden, of Berlin,[1] and by Dr. E. C. Seguin, of New York.[2] The latter had, in 1873, published a description of five cases, under the name of "tetanoid pseudo-paraplegia," which presented essentially the same group of symptoms with those under consideration. His conclusions with regard to the present discussion may be briefly summarized as follows: (1.) The existence of primary, idiopathic sclerosis of the lateral tracts (crossed pyramid tracks, columns of Türck) is possible, but not proved. (2.) The symptom tetanoid rigidity of the lower extremities may be due to myelitis in the dorsal region, myelitis from injury or pressure, disseminated nodular sclerosis, etc. (3.) It is probable that a functional tetanoid paraplegia exists in children, caused by genital or other peripheral irritation; and (4) it may possibly be due to defective cerebral development, and consequent agenesis of certain tracts in the spinal cord. The symptom may be allied to the "late contracture" from cerebral hemiplegia.

Nerve Stretching and Nerve Section. — Almost all the larger superficial nerves of the body have now been stretched for neuralgia or motor disorders, with varying but on the whole satisfactory results. Recently, Nussbaum [1] has performed the operation on the abdominal (terminal) branches of the eighth, ninth, and tenth intercostal nerves of both sides, with complete success, so far as known (up to the twenty-fifth day). In the course of the operation the peritonæum was wounded, and there was slight hernia of the omentum.

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[1] Berl. klin. Wochenschrift, December, 1878.

[2] Archives of Med., February, 1879.

Clonic spasm of the facial muscles, so intractable to ordinary treatment, has also been cured by stretching the facial nerve,[2] by Dr. Baum. The author thinks that the crushing which the nerve received may have contributed to the result. The operation was followed by paralysis of the face, which lasted, however, but half an hour.

Interesting surgical details with regard to the *section* of the *supra* and *infra orbital nerves* are given by Lasalle,[3] Lossen,[4] Braun,[5] Czerny,[6] and a clinical review of the subject by Dr. S. Weir Mitchell.[7]

The use of aconitia in trigeminal neuralgia had been highly praised by Gubler, and has been recently studied by Dr. E. C. Seguin and others of New York, and found in a small number of severe, intractable cases sometimes remarkably efficacious, sometimes valueless. In the successful cases the good effect persisted for long periods, at least, after a comparatively short use of the drug. The formula used by Dr. Seguin is: —

Duquesnel's aconitia [8]	gr. 1-12 to 1-8
Alcohol,	
Glycerine	āā ʒ i.
Peppermint water	ad f ℥ ij. M.

Dose: one teaspoonful three times a day.

The dose is to be carefully but steadily increased, until the full physiological action of the drug is felt (the first symptom is usually a feeling of numbness, especially over the face).

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PROCEEDINGS OF THE AMERICAN DERMATOLOGICAL ASSOCIATION.[9]

The third annual meeting of the American Dermatological Association was held at the Park Avenue Hotel, New York, on the 26th, 27th, and 28th of August, and the sessions were of great interest, as a rule.

There was a fuller attendance than last year, when the society met at Saratoga, there being present Drs. J. N. Hyde, of Chicago, W. A. Hardaway, of

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[1] Cit. in Centralblatt für Nervenheilkunde, etc., February 1, 1879. Sonnenburg Ref.

[2] Berl. klin. Wochenschrift, 1878, No. 40.

[3] Cit. in Bull. de Thérapeutique, November 30, 1878.

[4] Centralblatt für Chirurgie, 1878, No. 5.

[5] Centralblatt für Chirurgie, 1878, No. 10.

[6] Cit. in Centralblatt für Nervenheilkunde, etc., 1879, No. 11. Erlenmeyer Ref.

[7] Brain, October, 1878.

[8] This preparation appears to be especially efficacious.

Reported for the JOURNAL.

St. Louis, and L. Duncan Bulkley and F. P. Foster, of New York, who were absent then; and the papers read were perhaps generally of a somewhat more practical character than on that occasion.

During the course of the meeting the following officers were elected for the ensuing year: president, Dr. L. A. Duhring, of Philadelphia (reëlected); vice-presidents, Dr. Edward Wigglesworth, of Boston, and Dr. W. A. Hardaway, of St. Louis; secretary, Dr. Arthur Van Harlingen, of Philadelphia; and treasurer, Dr. I. E. Atkinson, of Baltimore (reëlected); and it was decided that the next annual meeting should be held in Newport, and commence on the last Tuesday of August, 1880.

The president's address, by Dr. Duhring, was on The Rise of American Dermatology, and it was exhaustive in regard to the subject treated, exhibiting throughout unmistakable evidences of the most painstaking labor and elaborate research. The key-note of the whole was Dr. Benjamin Rush's dictum, "Sciences are not made, but grow," and, accordingly, he traced the development of this branch of medicine in this country from the time that the first medical work (A Brief Guide in the Small-Pox and Measles, by Thomas Thatcher, 1677) ever published here appeared, step by step, until we reach the present period of such satisfactory progress. While all through the generations preceding, however, the foundations of the superstructure that now appears so admirable were being laid, he showed that the work accomplished was as a general rule of a very crude and desultory character, and that it was not until very recently that American dermatology, in the broad sense in which this term is to-day employed, had its birth; dating back, as it does, scarcely farther than a period within the recollection of all the members of the association.

The first paper after the president's address was one on A Case of Incomplete Vitiligo, by Dr. I. E. Atkinson, of Baltimore. The disease occurred in a female, a dark mulatto, and commenced on the backs of the hands, from thence spreading over the arms, neck, anterior portion of the trunk, buttocks, and lower extremities; and the curious part of it was that, contrary to the generally accepted opinion that in vitiligo a restitution of the normal pigmentation does not take place, the writer was able to observe in portions of the surface, where error could be readily avoided (as the backs of the hands), first the complete absence of deficient coloration, subsequently the existence of the vitiligo, and, finally, its complete recession from the parts.

Dr. J. C. White, of Boston, thought it a matter of importance that this restoration of pigment should have been under the observation of so reliable an authority, and said that he believed it to be the first instance of the kind in which this was the case.

Dr. Hardaway mentioned that Dr. Yandell has reported a large number of cases of vitiligo in the negro, some of which would seem to show that in the African race this is not always a permanent affection.

Dr. George H. Fox, of New York, was of the opinion that in the *complete* forms of vitiligo no return of pigmentation could ever take place.

The discussion was also participated in by Drs. L. Duncan Bulkley and R. W. Taylor, of New York, and Dr. S. Sherwell, of Brooklyn. At its conclusion, a paper entitled A Contribution to the Study of the Bulbous Eruption induced by the Ingestion of Iodide of Potassium was read by Dr. J. N.

Hyde, of Chicago. The case which formed the basis of the remarks made was that of an infant at the breast, eight months old, the subject of chronic eczema capitis. When seven months of age a profuse crop of boils came out upon the head, and with the hope of checking the further development of these the attending physician administered iodide of potassium in quantities of one drachm *per diem.* In consequence of the use of the iodide well-marked hydroa appeared over the extremities and nates, which, as is always the case in this affection, promptly receded after the exhibition of the drug was discontinued. In the course of the paper Dr. Hyde presented a table of all the cases that were on record, so far as he knew, which showed that the eruption was known to have occurred in only twelve individuals, of whom his own patient was by far the youngest. The most valuable of the practical conclusions arrived at was that, both in eczema and in acquired syphilis, when a distinctly vesicular or bulbous eruption becomes suddenly apparent, the lesions intermingled with those characteristic of the diseases named, in the person of patients who have been under the charge of inexperienced practitioners, the possibility that the iodide of potassium has been previously administered should be carefully estimated.

During the discussion which followed this paper, Dr. Edward Wigglesworth, of Boston, related a case in which an eruption of the above character appeared on the lower extremities in a lady who at the time was taking the bromide of potassium in large doses, by the advice of Dr. Brown-Séquard, for epilepsy. The bullæ were somewhat acuminate, and varied in size from that of a pea to that of the end of the finger. Afterwards they became confluent, and extended up to the middle of the thigh on one side, while they were confined to the region below the knee on the other. The affection remained entirely intractable as long as the bromide was kept up; but as soon as this was discontinued it began to improve, and before long disappeared.

Drs. Van Harlingen, White, and Duhring all spoke of the service of arsenic in preventing or relieving the cutaneous trouble sometimes set up by the iodide and bromide of potassium; and Dr. Taylor stated that while it had proved efficacious in connection with the iodide, this was not the case as regards the bromide, in his hands.

At the opening of the afternoon session, Dr. Bulkley read a paper entitled Two Cases of Chancre of the Lip, probably acquired through Cigars. Both the patients in which the disease occurred were physicians of education and experience, and after a very careful search for the means by which the syphilis was communicated each could arrive only at the conclusion that this had occurred through the agency of cigars. Dr. Bulkley referred to the case of the young woman in Connecticut, several years ago, who, it was found, was in the habit of putting their ends in her mouth while engaged in making cigars, and stated that he believed that these two were the first cases on record in which syphilis was transmitted in this way.

An interesting discussion in regard to various points touched upon by Dr. Bulkley followed the reading of the paper, and it was participated in by Drs. Heitzmann, Atkinson, Taylor, Hyde, Bulkley, and Wigglesworth. The latter mentioned a very interesting extra-genital case, the initial lesion of the syphilis being on the tonsils. In this case also the patient was a physician.

The next paper was by Dr. Fox, on The Treatment of Eczema and Ulcers of the Leg by an Elastic Tubular Bandage. The manner of applying it was to slip it over the foot on the leg as far as necessary, after having first anointed the limb with oil. Among the advantages claimed for it were its lightness and inexpensiveness, and the equableness of the pressure exerted by it.

Dr. C. Heitzmann, of New York, the distinguished pathologist, followed with an extemporaneous, but finished and elaborate, exposition of his Microscopical Studies on Inflammation of the Skin, which he illustrated with numerous pencil drawings, executed while he was talking, and during the course of which he made the statement that the inflammatory process is perfectly plain to-day in its minutest features, so far as our best modern microscopes allow of a definite conclusion, and that the present results of the researches made are in full accordance with the facts of clinical observation, — an accordance which was impossible in connection with all the doctrines that have heretofore been advanced. His observations on inflamed portions of skin have led him to the following conclusions:—

(1.) In epithelium the first step of the inflammatory process consists in an increase of the living matter, both in the protoplasmic bodies and between them; the former producing the coarse granulation of the epithelia, and the latter the thickening of the so-called "thorns" in the cement substance. Any particle of living matter, either in the epithelia or between them, through continuous growth may lead to a new formation of epithelial elements, with the termination in hyperplasia of epithelium (psoriasis, squamous eczema, horny formations, etc.).

(2.) In connective tissue the first manifestation of the inflammatory process is the dissolution of the basis substance and reappearance of the protoplasmic condition; by which process and the new formation of medullary elements (which may start from any particle of living matter) the inflammatory infiltration is established. The sum total of the inflammatory elements which remain united with each other by means of delicate offshoots represents an embryonal or medullary tissue. If the new formation of medullary elements be scanty, the resolution is accomplished by re-formation of basis substance (erythema, erysipelas, etc.). If, on the contrary, the new formation of medullary elements be profuse, a new formation of connective tissue (hyperplasia) will result (scleroderma, elephantiasis, etc.).

(3.) The plastic (formative) inflammation may be accompanied by the accumulation of a large amount of a serous or albuminous exudation in the epithelial layer (miliaria, sudamina, herpes), or in the connective tissue of the derma (urticaria). In both instances complete resolution will ensue.

(4.) Suppuration in the epithelial layer of the rete mucosum is produced by an accumulation of an albuminous or fibrinous exudation, by which a number of epithelia are destroyed, and by new formation of pus corpuscles from the living matter of the epithelial elements themselves. Epithelial suppuration heals without the formation of a cicatrix (eczema madidans and pustulosum, impetigo, pemphigus, variola).

(5.) Suppuration in the connective tissue of the derma results from the breaking apart of the newly formed medullary elements, which, being suspended in an albuminous or fibrinous exudation, now represent pus corpuscles. Pus is a product of the inflamed connective tissue itself, and always a result of destruction of this tissue. Suppuration of the derma invariably heals through cicatrization (abscess, furuncle, acne, ecthyma, variola).

The morning session of the second day, August 27th, was inaugurated with a paper on Viola Tricolor (wild pansy), by Dr. H. G. Piffard, of New York. In regard to its active ingredients he stated that little was known. Boullay failed to find violine in it. (Gubler.) As to its physiological action, a strong infusion made from half an ounce to one ounce of the herb, without the root, does not give rise to any suspicion that it contains violine or emetine. Its action, which is exceedingly mild, however, sometimes proves laxative, and at others diuretic. It has long been a favorite in France in the treatment of eczema capitis, and Dr. Piffard has employed it for many years with great satisfaction in chronic cases of this affection. The watery preparations have appeared to answer better than the alcoholic, and his usual procedure is to give it in infusion, combined with purgative doses of senna at first. The imported herb should always be employed, and care should be taken to procure a good quality, as most of it in the market is inferior. A discussion of some length followed, which ran into the wider subject of the relative value of internal and local treatment in eczema.

Dr. Van Harlingen then read a paper entitled A Case of hitherto Undescribed Tuberculo-Vesicular Disease of the Skin. The age of the patient, who was a female and a native of Germany, was thirty-nine years, and the skin affection had lasted since early life. It was principally confined to the legs and ankles, while the upper portions of the body were the seat of chronic eczema. The lesions were distinct and solitary, and consisted of large tubercles, oval in shape and often of the size of the thumb-nail, slightly elevated, and frequently containing a small amount of pus in the centre, which was depressed. Fifty of these were counted on the left leg, and thirty on the right. The patient was under observation for about three months altogether, during a portion of which time she was treated with iodide of potassium and bichloride of mercury without benefit. For the last month Dr. Bulkley's liquor picis alkalinis was employed locally with some amelioration of the symptoms. Specimens from the tubercles were sent to Dr. Heitzmann for microscopical examination, who reported that the main pathological change was in the capillaries of the papillæ, which were frequently found converted into connective tissue.

In his remarks upon the case at the meeting, Dr. Heitzmann expressed the opinion that it was merely one of eczema, which had been so aggravated by constant scratching that it had been converted into chronic urticaria or erythema; but Dr. Van Harlingen stated that if he had seen the patient he did not believe that he would make such an assertion, while the pathological history of the lesions was entirely at variance with such a hypothesis.

Dr. Duhring, who had also seen the case personally, confirmed Dr. Van Harlingen's statements, and remarked that when he first looked at it he recognized at a glance that there was an affection present which he had never met with before in all his experience.

(*To be concluded.*)

THE FORTY-SEVENTH ANNUAL MEETING OF THE BRITISH MEDICAL ASSOCIATION.

On Tuesday, August 5th, the British Medical Association met at Cork, Ireland, Dr. Falconer, the president, in the chair.

Dr. Falconer opened the meeting with the delivery of his retiring address, in which he reviewed the work of the association for the past year, augured an increase of the association from the character of the present meeting, and commended his successor, Dr. O'Connor, to the notice of members.

Dr. T. D. Sullivan, president of Queen's College, Cork, then announced that the Queen's University, as a mark of their appreciation of the work of the association, will confer the degree of M. D. upon the outgoing and incoming presidents.

A vote of thanks to Dr. Falconer was then proposed and conferred, a sketch of Dr. Falconer's medical life being given by Dr. Waters.

The names of eminent foreigners present were then read, and included those of Hirschberg, Martin, and Lieb, of Berlin; Loring, Agnew, Seguin, Beard, Sayre, and Sayre, Jr., of New York; Palmer, of Michigan; L. Turnbull, of Philadelphia; Byford, of Chicago; Yandell, of Louisville; Cordes, of Geneva; Gracinto, of Turin; Ball, De Mussy, Gallard, Lutaud, Boggs, Bonafoat, Charcot, of Paris.

The report of the council was next read. Receipts for past year, £12,433 4s. 7d.; payments, £12,939 9s. 9d. The balance against the treasury was more than counterbalanced by the revenue account, which shows the amount of £769 16s. 10d. in favor of the association. Total excess of assets over liabilities, £6219 8s. 6d. Number of members admitted during the year, 680; 87 deaths, 172 resignations. Total number of members on register, 7810. The increased size and prosperity of the *Journal* of the association received mention. In consideration of extraordinary professional services by Surgeon-Major James Henry Raynolds in Zululand, of his attention to wounded under fire, etc., the gold medal of the British Medical Association "for distinguished merit" was awarded him. The work of the Habitual Drunkard's Committee has been successful. Dr. Cameron's bill has become law, and the principle of the detention of the habitual drunkard has been affirmed by both houses of Parliament. Reference was made to certain parliamentary bills, and to the report of the Medical Reform Committee. The report terminated by allusion to eminent members who have died during the past year, and whose deaths have from time to time been noticed in our pages.

The second general meeting was opened on the following day by the new president, Dr. O'Connor. It was announced that the next annual meeting would be holden in Cambridge, and Professor Humphry was appointed president elect.

The address on Medicine, an eloquent effort, published in the *British Medical Journal* for August 9th, was then delivered by Dr. Hudson, who subsequently received flattering thanks from the association.

Dr. Gallard, of Paris, through Dr. Bennett, presented his works to the association. Dr. Carpenter suggested, since the association as a traveling body had no library, that these volumes be given to the library of Queen's College as a memento of the occasion. Adopted.

A letter of regret at his absence, from Donders, of Utrecht, was read.

The third general meeting on the next day listened to the interesting report of the Medical Reform Committee. It will be found in the *British Medical Journal* for August 16th. Likewise the report of the Committee on Habitual Drunkards, also read at this meeting.

The address in Surgery, by Mr. Savory, then followed.

The presentation of the gold medal to Surgeon-Major Raynolds was then made, with felicitous remarks.

At the fourth general meeting, August 8th, Dr. Andrew Fergus's address on Public Medicine was read by Dr. McCall Anderson, Dr. Fergus having been detained by illness in his family.

The usual vote of thanks followed.

The concluding general meeting, holden August 9th, heard the report of the Hospital Out-Patient Reform Committee, and the committee was reappointed. The report deserves attention, for it dealt with a serious evil, namely, the injurious effect of the out-patient system of hospitals upon the general public. The system was described as one which had made the hospitals great public dispensaries for classes not the proper subjects of hospital relief. See the *British Medical Journal* of August 16th for the report.

Dr. Hart then moved that a committee be appointed to consider and report whether it would be desirable to adopt the metric system in Great Britain and Ireland, and whether (and if so, by what means) the association should facilitate its introduction. The motion was seconded. Dr. Seguin, of New York, then laid before the meeting "a history of what he termed the brilliant metric campaign in America." His essay will be found in the *British Medical Journal* for August 16th. At its conclusion the motion was carried, and a strong committee, consisting of such men as Lauder Brunton, Clifford Allbutt, A. Carpenter, Quain, etc., was appointed.

The reports of the committees on registration of disease and on parliamentary bills were read.

Motion was made that a committee be appointed to see how convalescents from acute infectious diseases may be dealt with, by isolation or otherwise, in order to prevent the spread of the disease. The remainder of the meeting was devoted to votes of thanks. Addresses which have not been mentioned in this synopsis will be found in the *British Medical Journal* for August 9th and 16th. They are all worthy of perusal. The meeting was one of the largest ever held away from the great centres. The principal scientific events were the address of Dr. Savory and the interesting and novel demonstrations of the hitherto unseen blood corpuscles, by Dr. Norris, who believes the body to be the fibrin factor of the blood. The section work was excellent.

It is to be regretted that we have no annual national medical meeting in the United States similar in character, and influenced by such scientific devotion as that of the British Medical Association.

GREAT BRITAIN AND THE UNITED STATES.

By the British journals which we now so frequently see in the hands of our practitioners; by the works on medical subjects by British authors which are constantly being welcomed by us, and added to those standard treatises which have long had a recognized place upon our shelves; by the warm reception on the other side of the water of many of the writings of our American authors, one is always more or less impressed with the community of medical and scientific interests and developments between the two countries using the same language, and having, in some respects if not in all, similar habits of life and of constitution. And this is brought home to us with more than usual force at the present time, just as the accounts of the late meeting of the British Medical Association at Cork are reaching us, an abstract of which we lay before our readers. At this meeting a number of well-known Americans were present, several of whom had been asked to prepare papers for the occasion.

Of the addresses in the different sections, it may be safely said that all were interesting, and one or two very suggestive, notably that of Mr. Savory in Surgery, and of Dr. Andrew Clark in Medicine. Antiseptic surgery and the best methods of improving medical education are subjects in which as deep an interest is taken here as in Great Britain, and we are as eager for light upon them as our brethren there can be.

The same thought again occurs to us in following the testimony before the select committee of the House of Commons in regard to the composition and efficiency of the British Medical Council. Their achievements may be ours; their obstacles and difficulties, with some changes of circumstances and surroundings, are pretty sure to be ours. Good work cannot be done there, and we not profit by it; the British standard of medical education, of professional attainment and accomplishments, cannot be elevated, and we not be drawn up by it; nor can they make mistakes or encounter and overcome difficulties, and we not learn by them if we will. Of all this the converse is also true. In the scientific and practical branches of our profession there is already mutual respect and confidence and coöperation between the two countries; perhaps it is not too much to hope that the time may come, and that not at a too distant day, when this coöperation may be extended advantageously, if only in a limited way, to the mutual minimum educational standards and guarantees.

The British Medical Council have been considering the propriety of adding to their register a department for the registration of foreign practitioners under certain restrictions, giving a guarantee that the diploma represents at least the minimum attainments required from the British diploma. With the constantly increasing social and commercial intercourse between the two countries, such a step would affect the United States more perhaps than any other country. The difficulty naturally would be to devise a test for the value of the American degree. At present the unregistered practitioner in Great Britain cannot collect fees in the courts, nor sign certificates, nor hold medical appointments in public institutions or in the merchant service, nor can he appear as a medical witness (the latter restriction would probably be regarded by many as a boon); otherwise we believe the unregistered practitioner, whether native or foreign, stands upon the same footing as the registered, and in the matter of collecting fees upon the same footing as the member of the College of Physicians. In the recommendations of the General Medical Council on education and examination for 1879, a copy of which is before us, we notice Chapter III., Article 19, "That the age of twenty-one be the earliest age at which a candidate shall obtain a license to practice, and that the age shall, in all instances, be duly certified."

Article 20. "That no license be obtained at an earlier period than after the expiration of forty-five months subsequent to the registration of the candidate as a medical student."

Chapter IV., Article 5. "That the course of professional study required for a license shall occupy at least four years, of which at least three winter and two summer sessions shall be passed at any school recognized by any of the licensing bodies mentioned in Schedule A of the medical act."

This subject is one which may at an early day have practical importance for our readers, and we hope to be able to offer them further information.

MEDICAL NOTES.

— Says the St. Louis *Courier of Medicine:* "It is asserted that strong coffee, without sugar or milk, given in teaspoonful doses every ten minutes, will arrest the vomiting of cholera infantum, and that a tablespoonful given as frequently to adults will relieve the vomiting of cholera morbus."

— M. Hayem has been elected to the chair of therapeutics in Paris, made vacant by the death of Professor Gubler. — Mr. Clement Williams, of England, formerly a surgeon in the royal army, and latterly Florence correspondent of the JOURNAL, died of typhoid fever in Florence in June last. He was an able man, and will be regretted by many. — Professors Charcot and Ranvier, of Paris, Professor Esmarch, of Kiel, and Schiff, of Geneva, have been elected corresponding members of the Royal Academy of Brussels.

— Dr. Preissmann, in the *Wien. Med. Presse*, 1879, No. 16, strongly recommends the use of salicylic acid in the treatment of psoriasis. A little cotton-wool or lint is soaked in a mixture of one part of salicylic acid and sixteen parts of rectified spirit, and the affected parts of the skin are rubbed with it. The crust soon falls off, leaving the surface of the skin red, shiny, and smooth.

— Dr. Quinant, in the *Union médicale*, recommends *massage* of the hypertrophied tonsils in non-inflammatory cases. He passes the index finger, covered with powdered alum, back to the tonsils, and compresses and "kneads" them. This done, the patient gargles with a mild astringent, and at the end of two or three days is able to perform the operation for himself. He asserts that by this means he is able to resolve the hypertrophy and avoid excision of the glands. This treatment could hardly be recommended in children. Much trouble of this kind could be avoided by a careful inspection of the throat after coughs in young children. The local catarrh which gives origin to the enlargement can be attractively treated by sweetened medicated spray.

PHILADELPHIA.

— The medical department of the University of Pennsylvania and the Jefferson Medical College both open for the preliminary course of lectures on

Monday, September 8th, the regular winter course commencing on the 1st of October. The clinical lectures at the hospitals also begin early in September. During the summer months medical matters have been almost at a stand-still. Since the lectures closed in June it is true that the dissecting-rooms have been kept open, but students only exceptionally avail themselves of them, as few have the fortitude to remain in the city during the hot weather. Those who continue at their studies, however, have opportunities at the dispensaries and in the hospitals that they are debarred from in the winter, but can enjoy freely during the summer, more particularly since the establishment of the daily clinical service at the colleges. This is in marked contrast with the time, not so very long ago, when the colleges were open for five months in the year, and during the remainder of the time were completely closed; and the retrospect should afford some encouragement to those who have been laboring for advance in medical education and in the requirements for graduation.

— Professor Roberts Bartholow has regularly taken up his abode in Philadelphia, and has been warmly received by the local profession and the faculty of Jefferson College.

— Dr. Wm. H. Greene, recently a student of Professor Wurtz in Paris, and translator of Wurtz's Elements of Chemistry, has been appointed demonstrator of practical chemistry at the University of Pennsylvania, to assist Professor Wormley.

— The operation of rapid lithotrity and evacuation by Bigelow's method was performed by Dr. Thomas G. Morton at the Pennsylvania Hospital on the 22d of August. This is believed to be the first performance of this operation in the city. The subject was a young man of eighteen years, and the calculus of uric acid, weighing about a drachm.

— A death from tetanus, apparently the result of a bee sting, occurred here not long since. John B., thirty-four years of age, was brought to Pennsylvania Hospital with the complaint that he could not move his jaw when he tried to eat his dinner on the day of admission, and that on his way to the institution he had had several convulsions in the street. Upon examination, a small spot covered by dried pus and surrounded by a small area of inflammation was found on his fore-arm, where, he said, he had received a sting from a bee a couple of weeks before. After admission he had well-marked tetanic convulsions, particularly affecting the respiratory muscles. He died of exhaustion within a few hours after reaching the hospital. At the post-mortem no other cause for death was detected, and as the coroner's physician pronounced it a case of tetanus from a bee sting, a verdict was rendered accordingly.

— Owing to the vigilance of our board of health and the medical officers in charge of the Lazaretto (the quarantine station), the yellow fever did not succeed in coming nearer than within twelve miles of the city, where a comparatively large number of fever-infected vessels were detained at quarantine and disinfected. In reply to a communication from the National Board of Health, in regard to hotel runners and other persons from the city boarding vessels in the Delaware River below the quarantine station, the Philadelphia board has passed resolutions referring the matter to the consideration and control of the national health organization, and declaring the question within the jurisdiction of the latter body.

LIST OF CHANGES IN THE MEDICAL CORPS IN THE NAVY FROM AUGUST 20, 1879, TO DATE.

August 20th. Medical Inspector P. S. Wales appointed surgeon-general U. S. N. and chief of bureau of medicine and surgery, navy department, vice Surgeon-General J. W. Taylor, retired.

August 21st. Surgeon Adrian Hudson appointed assistant to the bureau of medicine and surgery, vice Surgeon J. B. Parker, detached and placed on special duty temporarily.

August 22d. Surgeon A. A. Hoehling ordered to special duty at Washington, D. C., attending officers of the navy and marine corps, vice Medical Inspector P. S. Wales, detached.

August 26th. Passed Assistant Surgeon J. R. Waggener detached from the Passaic and ordered to the nautical school ship St. Mary's, vice Passed Assistant Surgeon B. F. Rogers, detached and ordered to the Michigan.

August 26th. Passed Assistant Surgeon H. P. Harvey ordered to the U. S. receiving ship Passaic, Washington, D. C.

August 27th. Assistant Surgeon Daniel M. Guiteras ordered to the Powhatan, vice Assistant Surgeon Rich Ashbridge, detached and granted three months' leave.

August 28th. Passed Assistant Surgeon H. Aulick detached from the naval hospital, Mare Island, Cal., and ordered to the Tuscarora, vice Assistant Surgeon M. H. Crawford, detached and ordered to the receiving ship at Mare Island, Cal.

August 29th. Medical Inspector William M. King ordered to the U. S. S. Shenandoah, and as fleet surgeon of the South Atlantic Station.

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OFFICIAL LIST OF CHANGES OF STATIONS AND DUTIES OF OFFICERS OF THE MEDICAL DEPARTMENT U. S. ARMY, FROM AUGUST 23, 1879, TO AUGUST 29, 1879.

Head, Jno. F., lieutenant-colonel and surgeon. Relieved from duty in Department of the East, and assigned to duty as attending surgeon and examiner of recruits at Boston, Mass. S. O. 195, A. G. O., August 25, 1879.

Perin, Glover, lieutenant-colonel and surgeon, medical director of the department. Granted leave of absence for one month on surgeon's certificate of disability. S. O. 160, Department of the Missouri, August 20, 1879.

Clements, B. A., major and surgeon. Relieved from duty in Department of the Platte, and to report in person to the surgeon-general of the army. S. O. 195, C. S., A. G. O.

Horton, S. M., major and surgeon. Relieved from duty in Department of the East, and to report in person to the commanding general, Department of the Platte, for assignment to duty. S. O. 195, C. S., A. G. O.

Brewer, J. W., captain and assistant surgeon. Relieved from duty in Department of the Platte, to proceed to New York city, and, on arrival there, report by letter to the surgeon-general. S. O. 195, C. S., A. G. O.

Tremaine, W. S., captain and assistant surgeon. Relieved from duty in Department of the Missouri, to proceed to New York city, and, on arrival, report by letter to the surgeon-general. S. O. 195, C. S., A. G. O.

Vickery, R. S., captain and assistant surgeon. Relieved from duty in Department of the East, and to report in person to commanding general, Department of the Platte, for assignment to duty. S. O. 195, C. S., A. G. O.

Kimball, J. P., captain and assistant surgeon. Relieved from duty in Department of the East, and to report in person to the commanding general, Department of the Platte, for assignment to duty. S. O. 195, C. S., A. G. O.

Hoff, J. V. R., first lieutenant and assistant surgeon. Relieved from duty in Department of the Platte, to proceed to New York city, and, on arrival, report by letter to the surgeon-general. S. O. 195, C. S., A. G. O.

Adair, George W., first lieutenant and assistant surgeon. Upon expiration of his present leave of absence to report in person to commanding general, Department of the East, for assignment to duty. S. O. 195, C. S., A. G. O.

Brown, P. R., first lieutenant and assistant surgeon. Relieved from duty in Department of Dakota, to proceed to New York city, and, on arrival there, report by letter to the surgeon-general. S. O. 195, C. S., A. G. O.

Finley, J. A., first lieutenant and assistant surgeon. Relieved from duty in Department of the Missouri, to proceed to Philadelphia, Pa., and, on arrival there, report by letter to the surgeon-general. S. O. 195, C. S., A. G. O.

Taylor, B. D., first lieutenant and assistant surgeon. Relieved from duty in Department of Dakota, to proceed to New York city, and, on arrival there, report by letter to the surgeon-general. S. O. 195, C. S., A. G. O.

Turrill, H. S., first lieutenant and assistant surgeon. Upon expiration of his present leave of absence to report in person to commanding general, Department of the East, for assignment to duty. S. O. 195, C. S., A. G. O.

Kilbourne, H. S., first lieutenant and assistant surgeon. Relieved from duty in Department of the Missouri, to proceed to New York city, and, on arrival there, report by letter to the surgeon-general. S. O. 195, C. S., A. G. O.

* * *

REPORTED MORTALITY FOR THE WEEK ENDING AUGUST 16, 1879.

Cities.	Population estimated for July, 1879.	Reported Deaths in each.	Annual Death-Rate per 1000 during the Week.	Percentage of total Deaths from				
				The Principal "Zymotic" Diseases.	Diarrhœal Diseases.	Diphtheria and Croup.	Pneumonia.	Scarlet Fever.
New York	1,085,000	483	23.21	36.85	25.26	2.69	3.73	1.86
Philadelphia	901,380	294	17.07	24.83	17.68	1.70	1.70	.68
Brooklyn	564,400	246	22.73	39.84	32.52	4.47	2.85	1.22
Chicago	—	253	—	41.90	20.95	9.48	1.18	4.35
St. Louis	—	118	—	29.66	16.10	.85	1.70	.85
Baltimore	365,000	154	22.00	32.47	17.53	2.60	1.95	3.90
Boston	360,000	145	21.00	40.69	33.10	3.45	.69	—
Cincinnati	280,000	94	17.51	34.04	11.70	10.64	5.32	8.51
New Orleans	210,000	87	—	8.05	3.45	1.15	1.15	—
District of Columbia	160,000	101	32.86	34.65	15.84	.99	3.96	2.97
Cleveland	—	51	—	37.25	19.61	7.84	5.88	—
Pittsburgh	—	75	—	40.00	17.33	14.67	4.00	2.67
Buffalo	—	—	—	—	—	—	—	—
Milwaukee	—	44	—	43.18	29.55	11.36	—	—
Providence	101,500	35	17.98	31.43	11.43	11.43	—	5.76
New Haven	60,000	14	12.17	21.43	—	—	—	—
Charleston	57,000	22	20.13	9.09	9.09	—	—	—
Nashville	27,000	20	38.62	25.00	15.00	—	—	—
Lowell	53,300	19	18.58	26.32	26.32	—	5.26	—
Worcester	52,500	23	22.84	26.09	26.09	—	—	—
Cambridge	50,000	24	25.03	20.83	12.50	—	—	—
Fall River	48,500	24	25.80	45.83	25.00	4.17	—	12.50
Lawrence	38,200	19	25.94	31.58	10.53	10.53	—	—
Lynn	34,000	15	23.01	20.00	13.33	6.67	6.67	—
Springfield	31,500	12	19.86	16.67	8.33	8.33	—	—
New Bedford	27,000	25	48.28	36.00	24.00	—	4.00	8.00
Salem	26,400	14	27.65	28.57	28.57	—	—	—
Somerville	23,350	7	15.63	57.14	28.57	28.57	—	—
Chelsea	20,800	8	20.06	75.00	25.00	12.50	—	—
Taunton	20,200	5	12.91	20.00	20.00	—	—	—
Holyoke	18,200	13	37.25	38.46	23.08	—	—	—
Gloucester	17,100	7	21.34	28.57	28.57	—	—	—
Newton	17,100	—	—	—	—	—	—	—
Haverhill	15,300	10	34.08	60.00	40.00	10.00	10.00	—
Newburyport	13,500	8	30.90	25.00	12.50	—	25.00	—
Pittsfield	12,650	13	53.59	15.38	15.38	—	—	—
Fitchburg	12,500	5	20.86	—	—	—	—	—
Milford	9,800	3	15.96	—	—	—	—	—

Two thousand four hundred and ninety deaths were reported, showing a decrease of 66 from the previous week: 741 from the principal infectious diseases, 528 from diarrhœal diseases, 304 from consumption, 108 from diphtheria and croup, 61 from pneumonia, 52 from scarlet fever, 51 from typhoid fever, 32 from malarial fevers, 30 from whooping-cough, 30 from bronchitis, 22 from cerebro-spinal meningitis, 14 from measles, two from erysipelas, and one from small-pox (New York). From *typhoid fever*, Philadelphia and Chicago reported 10 deaths, New York and District of Columbia six, Baltimore four, St. Louis, Boston, Cleveland, and Lawrence two, Cincinnati, Providence, New Haven, Cambridge, New Bedford, Chelsea, and Newburyport one. From *malarial fevers*, St. Louis ten, New York eight, District of Columbia six, New Orleans and Baltimore two, Chicago, Pittsburgh, New Haven, and Nashville one. From *whooping-cough*, New York and Baltimore five, Boston four, Cleveland three, Philadelphia, Brooklyn, Chicago, Cincinnati, and District of Columbia two, Pittsburgh, Cambridge, and Chelsea one. From *cerebro-spinal meningitis*, New York seven, Chicago, Baltimore, and Holyoke two, Philadelphia, St. Louis, District of Columbia, Milwaukee, New Haven, Nashville, Fall River, Chelsea, and Haverhill one. From *measles*, New York six, Chicago three, Brooklyn and Pittsburgh two, St. Louis one. From *erysipelas*, New York and Philadelphia one. From *trismus nascentium*, three in Charleston, two in District of Columbia, and one in Baltimore. Yellow fever continued to increase in Memphis. The infectious diseases continued to decline, especially diarrhœa, consumption and pulmonary diseases remaining about the same. There was a very great increase in diphtheria and croup, and a greater decrease in erysipelas. Whooping-cough was much less fatal; cerebro-spinal meningitis more so. In twenty cities and towns of Massachusetts, with an estimated population of 884,800, diarrhœal diseases were diminishing in fatality.

The meteorological record for the week in Boston was as follows: —

Date.	Barometer.	Thermometer.			Relative Humidity.				Direction of Wind.			Velocity of Wind.			State of Weather.[1]			Rainfall.	
	Mean.	Mean.	Maximum.	Minimum.	7 A. M.	2 P. M.	9 P. M.	Mean.	7 A. M.	2 P. M.	9 P. M.	7 A. M.	2 P. M.	9 P. M.	7 A. M.	2 P. M.	9 P. M.	Duration.	Amount in Inches.
Aug. 17	30.012	55	58	54	93	94	100	96	NE	NE	NE	10	7	4	O	O	R	—	.64
" 18	29.840	59	62	55	100	97	100	99	NE	NE	NE	10	8	28	G	O	R	—	3.33
" 19	29.912	66	75	56	78	55	73	69	W	NW	NW	24	20	10	F	F	C	—	1.80
" 20	30.110	66	79	53	84	33	72	63	W	NW	SW	6	6	4	C	C	C	—	—
" 21	30.023	73	85	60	79	44	71	65	SW	SW	W	4	8	12	C	F	F	—	—
" 22	29.786	75	89	66	92	58	83	78	SW	SW	S	10	11	9	R	C	F	—	—
" 23	29.683	75	86	70	85	51	63	66	SW	W	W	6	12	10	F	F	C	—	—
Week.	29.908	67	89	53				76		SW		1830 miles.						36.59	5.87

The mortality from yellow fever in Memphis continues to increase. One hundred and seventy-one cases and 60 deaths were reported for the week ending August 30th, or 848 cases and 228 deaths in all, including those which were not promptly reported from week to week. In New Orleans there have been 17 cases and five deaths reported since the appearance of the disease, July 23d.

For the week ending August 2d, in 149 German cities and towns, with an estimated population of 7,557,465, the death-rate was 25.8 (previous week 24.1). Three thousand seven hundred and forty-nine deaths were reported: diarrhœal diseases 606, consumption 475, acute diseases of the respiratory organs 282, diphtheria 68, scarlet fever 57, whooping-cough 50, typhoid fever 48, measles 43, puerperal fever 27, typhus fever two, small-pox one. The death-rates ranged from 9.1 in Potsdam to 34.9 in Chemnitz; Munich 33.7; Dresden 28.5; Berlin 30.5; Hamburg 24.7; Hanover 16.9; Cologne 25.6. In the same week, Vienna 24.3; Paris 22.3; Brussels, 21.0.

For the week ending August 9th, in 20 English cities, with an estimated population of 7,383,999, the death-rate was 17.4 against 18.3 of the previous week. Two thousand four hundred and sixty-one deaths were reported: diarrhœa 141, lung diseases 139, scarlet fever 95, measles 82, whooping-cough 66, fever 26, diphtheria 12, small-pox five. The death-rates ranged from 10.3 in Portsmouth to 26.9 in Sunderland; London 17.4; Bristol 14.4; Birmingham 16.0; Liverpool 19.6. For the same week, Edinburgh 15, Glasgow 16, Dublin 24, Geneva 23.2, Zurich 19.2.

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[1] O., cloudy; C., clear; F., fair; G., fog; H., hazy; S., smoky; R., rain; T., threatening.

American Gynæcological Society. — The following titles of papers to be read at the fourth annual meeting of the society, to be held in Baltimore, Md., in the hall of the Johns Hopkins University, on Harvard Street, on September 17, 18, 19, 1879, have been received: —

(1.) Annual Address, — The Gynæcology of the Future and its Relations to Surgery. By the president, Dr. T. G. Thomas. (2.) The Justo-Minor Pelvis, with the report of a case. By Dr. W. T. Lusk. (3.) Clinical Notes on the Hypertrophic Elongation of the Cervix Uteri. By Dr. W. Goodell. (4.) The Principles and Practice of Gynæcology as related to Insanity in Women. By Dr. A. J. C. Skene. (5.) Complete Congenital and Accidental Absence or Atresia of the Vagina in the Pregnant and Unpregnant Female. By Dr. I. E. Taylor. (6.) Idiopathic Septicæmia in Gynæcological Practice. By Dr. J. R. Chadwick. (7.) The Treatment of Puerperal Septicæmia by Intra-Uterine Injections. By Dr. E. W. Jenks. (8.) Intra-Uterine Medication. By Dr. J. P. White. (9.) Intra-Pelvic Dislocation of the Ovaries. By Dr. P. F. Mundé. (10.) Report of a Case of Extra-Uterine Pregnancy. By Dr. J. C. Reeve. (11.) The Early Application of the Forceps in the First Stage of Natural Labor. By Dr. I. E. Taylor. (12.) Intra-Uterine Medication by Iodized Phenol. By Dr. R. Battey. (13.) A New Method of Performing Decapitation. By Dr. W. L. Richardson. (14.) Mismanaged Labor the Source of much Gynæcological Practice. By J. Tabor Johnson. (15.) The Relations of Symptoms to Versions and Flexions of the Uterus. By Dr. E. Vander Warker.

American Academy of Medicine. — The fourth annual meeting will be held in the rooms of the New York Academy of Medicine, 12 West Thirty-First Street, New York, commencing Tuesday, September 16th, at three o'clock, p. m. The following programme has been determined upon: —

Tuesday afternoon: Organization, election of members, unfinished business, general business. Tuesday evening, at eight o'clock: Address by the president, Lewis H. Steiner, A. M., M. D., of Frederick, Maryland, on The Preparatory Education most needed by the Medical Student. Wednesday, ten a. m.: General business. Paper by Elisha Harris, A. M., M. D., of New York, on Hygiene and the Higher Researches of Science. Election of Officers. Introduction of president elect.

Erratum. — Page 318, No. 9, read Richmond, Va., instead of Richmond, Mass.

Books and Pamphlets Received. — Clinical Medicine. A Systematic Treatise on the Diagnosis and Treatment of Diseases. Designed for the Use of Students and Practitioners of Medicine. By Austin Flint, M. D., etc., etc. Philadelphia: Henry C. Lea. 1879. (From A. Williams & Co.)

Proceedings of the Connecticut Medical Society, 1879. Eighty-Eighth Annual Convention, held at Hartford, May 28th and 29th. C. W. Chamberlain, M. D., Secretary. Hartford. 1879.

Announcement and Catalogue of the National Medical College of the Columbian University. Washington, D. C.

The Medical Department of the University of Georgetown, District of Columbia.

Transactions of the College of Physicians of Philadelphia. Third Series. (Recoveries from Mental Diseases, by Isaac Ray, M. D.; Ulcerative Endocarditis, etc., by John M. Keating, M. D.; Gun-Shot Wound of Abdomen, etc., by J. Ewing Mears, M. D.)

The Yellow Fever Germ on Coast and Inland. A Discussion of Ship and Railroad Quarantine. By Henry Fraser Campbell, M. D., Augusta, Ga. (Medical Association of Georgia.)

Notes of Hospital and Private Practice. By Henry Gibbons, Sr., M. D. (Reprint.)

Materia Medica and Therapeutics. Vegetable Kingdom. By Charles Phillips, M. D., F. R. C. S. E., Lecturer on Materia Medica at Westminster Hospital, London. Edited and adapted by Henry G. Piffard, A. M., M. D. New York: William Wood & Co. 1879.

A Treatise on Hygiene and Public Health. Two Volumes. Edited by Albert H. Buck, M. D., etc., etc. New York: William Wood & Co. 1879.

Some Points connected with the Question of Responsibility as it relates to the Partially Insane. By T. L. Wright, M. D.

Asthma: Its Pathology and Treatment. By J. B. Berkart, M. D., etc., etc. London: J. and A. Churchill.

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LECTURES.

THE COMMUNICABLE FEVERS AND THEIR TREATMENT.[1]

A LECTURE DELIVERED AT BELLEVUE HOSPITAL, NEW YORK.

BY WILLIAM H. THOMSON, M. D.,
Professor of Materia Medica and Therapeutics in the Medical Department of the University of the City of New York.

II.

Gentlemen, — In others of these diseases beside diphtheria there are special indications. Thus in scarlatina and typhoid we are always to be on our guard against the occurrence of otitis. Just as soon as the patient complains of any pain in the ear, the best thing is to inject into it oil of peppermint, which, like that of winter-green, is a disinfectant. In typhoid there are two classes of cases in which the ear is usually affected. In the one, inflammation proceeds up from the throat into the internal ear, while in the other the ear trouble is simply a part of the desquamative process. In a case of typhoid I dislike very much to find diphtheria as a complication, since it is extremely likely to result in permanent deafness. I think I have warded this off in quite a number of instances, however, by the method of free irrigation of the throat, previously alluded to. In scarlatina, if the ear is affected early, we have external otitis, and external syringing will be found useful; but if the difficulty comes on later, it is the result of the spreading of the inflammatory process from the throat, and we have otitis media. Here it is better to use the method of irrigating the throat; and in severe cases of scarlatina, even where there is no otitis or diphtheria, I would strongly recommend its employment.

But we have other difficulties in scarlatina beside otitis, and prominent among them are delirium and convulsions. These you will find to be due to the high temperature present. Therefore, whenever I meet with any great increase in the body heat, I am in the habit of combating it immediately with cold-water applications. In scarlatina a high temperature is more dangerous than in any other affection with which I am acquainted. One hundred and six degrees almost always prove fatal, one hundred and five are very bad, and even one hundred and four are dangerous. In children the cold-pack is the best means of refrigeration, and when delirium or convulsions occur, cold is especially to be applied to the head.

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[1] Reported for the Journal.

From the very beginning of an attack of scarlatina we should never neglect to use inunction of the whole body three times a day. This answers quite a number of purposes, and is particularly useful in relieving itching and restlessness, and consequently enables us to keep the patient much more quiet than we could otherwise do. The itching is always annoying, because in this disease there is such a general inflammation of the skin, and hence the application of the oil is very grateful. If it is quite severe, lime-water liniment had better be employed, as the alkali renders the inunction more soothing. Another end that this procedure fulfills is the warding off, to a considerable extent, of renal complication; and it is often of still further service in preventing glandular trouble, as well as those prolonged affections of the mucous membranes, such as conjunctivitis and ozena, which are often so miserable a feature of scarlatina. Glandular implication, indeed, is always secondary to difficulty about the throat, ear, or nose, and hence the best way to avoid it is to use faithful inunction in combination with throat irrigation.

Lastly, as to scarlatinal nephritis. In every case a prodigious amount of uric acid is given off by the kidneys. In the urine of a patient suffering from the disease, I have sometimes seen the test-tube one third filled with a cloudy deposit looking like mucus, but in reality made up of the crystals of uric acid. For some time past I have been in the habit of using the uric of colchicum in cases of scarlet fever accompanied by kidney complication, and I have found the treatment, which I believe is original with myself, of material benefit. The dose generally employed is about five drops.

A few words now in regard to typhoid fever. This is the longest of the fevers, and, being characterized by the most continued pyrexia, it differs from the others in the immense amount of heat ordinarily given off during its course. The high temperature is long-continued and steady, while in the others it is shorter or intermittent (as in malarial fever), and hence in it there is, as a rule, more burning up of the materials of the body. There being thus a greater waste of the vital forces, it is the most exhausting of all the fevers. Consequently, in typhoid one of the leading indications is to employ apyretics, and I am a strong advocate of the use of cold as well as quinine and other agents capable of reducing temperature in its treatment.

Along with such measures, proper alimentation must be kept up steadily from the beginning to the end of the attack; for there is great danger of the patient's giving out from pure starvation. The food must always be administered systematically, and it is absurd to commence your treatment with stimulus, which should always be reserved until it is really needed. To do good, it should be given only when the critical period arrives. Stimulation is for a special time, and you do not order it to-day for an operation that is to be performed next week, for instance. It is imperatively necessary, however, that you should commence the feeding at once. The stomach is so weak that it is like that of an infant, and hence the only appropriate diet is milk, which it is better to dilute one half with lime-water. About a drachm of pepsin a day is also advisable, to assist its digestion, and bismuth is of service in preventing putrefactive changes in the intestines by its local action. It may, perhaps, be well to commence the treatment with a cathartic, but, beside the simple remedies just mentioned, I see no need for any further medication.

In typhus fever there is a greater tendency to cerebral trouble than in typhoid. Ice or other cold applications should therefore be early placed upon the head, and should be kept up as long as any headache persists. General inunction is more necessary in this disease than in typhoid, and is, indeed, scarcely less so than in scarlatina itself.

THREE CASES OF CEREBRAL MENINGITIS FROM DIFFERENT CAUSES.[1]

BY S. G. WEBBER, M. D.

Two of the following cases were observed at the City Hospital; the third was a private patient. Each case presents certain features of interest which will be noticed in their appropriate places.

Case I. Daniel B., twenty-six years of age, had a chancre in October or November, 1877, and indurated non-suppurating buboes. In December he entered the City Hospital with pain in the back of his neck, extending up to the occiput and down to his shoulders, which was worst at night. Towards the end of January he had a sore throat with enlarged tonsils, and a scarlet rash on his chest, which disappeared in about twenty-four hours. January 31st. A papular eruption appeared on his body and legs; he was put upon protiodide of mercury, and about the middle of February was discharged. He was admitted again in August with pains and headache; he slept poorly, was very dull mentally. He was discharged August 29th. He entered again September 30th with weakness of the legs and consequent difficulty in walking. He denied having pain when asked a general question, but if asked whether he had pain in any particular locality he answered, "Yes." October 2d. The mental disturbance was greater; he could not articulate, yet he understood many things said to him. He had been up and wandered aimlessly about the ward the evening before, but could not at that time talk. He gave no indication of pain, excepting that he constantly carried his hand to his head, and repeatedly lay the palm of his hand across his forehead; but when asked if his head ached he shook it. The saliva ran from his mouth, and he reached frequently for the spit cup, held it as if to spit, but was unable to do so. Occasionally the breathing was stertorous. Cardiac sounds were normal. Respiratory sounds were rather masked by the sonorous breathing, but in quiet intervals no râles were heard; the expiratory sound was unnaturally prolonged at the right apex, and there was a decidedly higher pitch on percussion in that region. The pupils reacted to light. There was slight ptosis on the left, and the facial muscles moved less freely on that side. On being told to protrude his tongue, he opened his mouth, the tongue fell back, and he snored. The movements of the right arm and leg were less ready than of the left, though there was not actual paralysis. Reflex action was marked on both sides. The abdomen was sunken, and the *tâche cérébrale* was unusually well marked. Pulse was 96 in the morning, 120 in the afternoon; the temperature was up to 101° to 102° F. in the evening. He had ten grains of iodide of potassium four times a day. The next day he could not swallow and had to be fed by the rectum. He received ergot. Four days later, October 7th, he had Cheyne-Stokes respiration. The ergot was omitted. Three days later, October 10th, there was some improvement, and he began to notice what was going on about him. October 16th. The abdomen was less retracted; the *tâche cérébrale* less marked; swallowing was less difficult; he obeyed orders; could get on the close chair with help. October 28th. He was just beginning to articulate a few simple words, but it was difficult to understand what he wished to say.

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[1] Read before the Boston Society for Medical Observation.

From this date he steadily improved. Temperature from one half to one degree below normal, excepting on November 9th and 26th. At the first of these dates he sat up three hours the previous afternoon, and on the 26th he sat up half an hour. After this, sitting up and even walking had no special influence upon the temperature.

He did not gain the power of articulating distinctly, but I was told that he was cheerful and afforded amusement to those in the ward by his mimicry of actions. He certainly understood all that I said to him, and volunteered some short remarks. The saliva ran from his mouth, he seeming to have no control over it; this and a certain silly look about the eyes would lead me to suspect impaired intelligence, though it is possible that there was merely lack of power to express himself. The physical signs referable to the lungs were the same when he left the hospital as at the previous examination.

When I first saw this patient, the whole of his previous history was not known; the diagnosis of tubercular meningitis was made. The disease was evidently cerebral, and the history, so far as obtained, did not show a sudden attack. Considering that there was general weakness rather than true paralysis, that at least some of the nerves at the base of the brain were affected, that there was probably some distress in the head, if not actual headache, these symptoms, together with the condition of the right lung, the high pulse, and the high temperature, seemed to justify the diagnosis.

The history of syphilis, however, gives a different aspect to the case. He had had pain in his neck and back of his head nearly a year previously, which was relieved under anti-syphilitic treatment. Six or seven months later he had the same pain again, with dullness of mind and stupidity, and these symptoms had persisted with greater or less intensity until his admission the last time. Then the more severe symptoms appeared which showed that from some cause there was meningitis. The approximate recovery caused me to doubt my diagnosis of tubercular meningitis. It is true that some authors maintain that this may end in recovery, but the cases of recovery from tubercular meningitis are so very rare that the probability is great that in any given case of recovery there were no tubercles.

Recovery, however, from syphilitic affections of the cerebral meninges s by no means unknown, and in view of the result it seems much more probable that this is the correct diagnosis.

There are a few points worth noticing. The syphilis seems to have been contracted in October or November, 1877. In the latter part of December, about two months later, the pain in the neck and occiput appeared, and the last of January an eruption. Seven months later there was headache and mental impairment, and one month later the severer symptoms occurred. This is an unusually early date for such symptoms to show themselves. After the 11th of October, and after the exacerbation on the 26th of November, the temperature was too low to warrant the view that there was active pulmonary disease.

Case II. Simon P., thought to be about thirty years old, had been out of work for a considerable time and rather desponding, sometimes taciturn; these symptoms had gradually increased in intensity. He had had attacks of dizziness, which lasted a considerable length of time; once he fell in the street, and was carried home. After recovery he denied having had syphilis.

He entered the hospital November 20th. He could give no connected account of himself; declared he was blind, but could count fingers half-way across the ward; at other times he said he was deaf, and answered questions readily. Seemed to have no power to tell anything about himself; said he was starved, again that he was paralyzed; wished he was dead, because he could not get work. If told he was dead, he acknowledged the truth of the proposition.

On examination, nothing abnormal was found in heart or lungs; abdomen not tender, not sunken, not abnormally tympanitic; no *tâche cérébrale*, no rose spots. The exertion necessary for this examination seemed to exhaust him, and he pretended to fall asleep, or rather perhaps he lay quiet, with eyes closed, not having the energy to make any further exertion.

Thinking that most of the above symptoms might be due to imperfect nutrition and mental worry, no medicine was given; he received only milk, soups, or beef tea every two hours. Three days later he had hallucinations; imagined he was on board ship; in the evening he became wild and noisy, and had to be removed to a separate room. About this time there was gurgling in the right iliac region. Three days later, November 26th, he had frequent attacks in which he was violent and had spasms. In one which occurred during the visit his face became red, and he remonstrated with imaginary persons, asked to be let alone when no one was touching him, tried to rise; after half a minute he lay down, and the face became paler than normal. During the attack, while his face was red, the head was drawn back, and there was a tendency to opisthotonos. His legs trembled for some time afterwards. Such attacks occurred every fifteen minutes or so.

About this time it was noticed that his tongue lay generally on the left, but he could move it to the right. The left side of the face twitched with slight spasms while the right did not. Between the attacks the pupils were normal in size and reacted to light. He recognized no one, not even his wife. He slept scarcely any. Iodide of potassium was given in five-grain doses three times a day, and three days later this was increased to ten-grain doses four times a day. At this latter date the *tâche cérébrale* was very well marked, and several rose spots were noticed on the abdomen. The tongue was dry, brown, and slightly cracked. The delirium continued, but gradually changed to a stupor. There was a soft blowing sound audible over the heart. Respiration was almost diaphragmatic.

December 10th. He began to recognize persons and take an interest in what was going on around him, but more or less delirium was noticed at times for nearly four weeks longer. After entire recovery a careful examination of the chest showed no signs of tubercular disease. The temperature was less regular in its rise and fall than is usually seen in typhoid fever.

This patient had for several weeks or even months shown considerable anxiety and mental disturbance from being out of work. It was learned subsequently that he had drank hard, which was suspected on his entrance from his general appearance. Had he been very sick during all these weeks it is scarcely likely that he would have remained out of the hospital so long. It is, then, reasonable to believe that only a short time before admission he became worse. There is no record of this, but my impression is that it was so. Many of the symptoms are such as are found in typhoid fever; if that set in, in a patient thus troubled mentally, it is not strange that severe mental symptoms should be developed during the fever. But did a simple meningitis occur? The irregular temperature would be thus explained. Acute meningitis was found by Hoffmann four times in two hundred and fifty autopsies in typhoid patients. Possibly there was such a complication in this case.

Meningitis and typhoid with cerebral symptoms very closely resemble each other. Trousseau states that rose spots do not occur in meningitis. The *tâche cérébrale* may be found in typhoid, but less distinctly marked than in meningitis. Trousseau considered Cheyne-Stokes respiration to be characteristic of meningitis.

The *tâche cérébrale*, or rather a red line following the drawing of the finger nail lightly over the skin, is seen in many persons where there is no cerebral lesion. Experiments made on patients with various diseases show that it is rather more frequently seen than not if the finger is drawn across the skin with sufficient pressure. To be of value as an aid in diagnosis, the red line must appear very quickly after a light impression, and be very red and very persistent. Partly in contrast with the deep red, partly, perhaps, owing to contraction of the vessels between the lines, if several lines are drawn, the skin between looks paler than the rest of the body.

CASE III. T. E. L., aged forty, was sent to me by Dr. H. I. Bowditch, October, 1872. He had taught school about twenty years. The previous spring, catching his heel, he fell forward down-stairs about nine steps, hitting his mouth and cheek on a post, and then fell full length on the floor. He had no unpleasant symptoms following this until the first of July. Then, while riding in an open wagon without springs, when the horse trotted he had a pricking sensation the whole length of his spine; when the horse walked he did not feel this. On the 4th of July, a hot day, he hurried in getting a carriage ready; he afterwards had a headache, and went to bed; no nausea then. Frequently afterwards, if he went into the sun, he had headache. This tendency rather increased, and the headaches became more severe.

When he began to teach again in September he had less than his usual vigor; noise and confusion troubled him very much. About two weeks previous to his visit he began to have nausea in the morning, and at times vomited, latterly every morning, from two to six times, always before breakfast. With the nausea there began motor disturbance; he walked a little unsteady, as if slightly intoxicated, was disinclined to move, and felt sleepy. No pain, no abnormal sensations, no anæsthesia in limbs. There was an uncomfortable feeling across the upper part of the neck, especially if the head dropped forward. The pain was more in the back of the head than the forehead, though frequently a sharp pain was felt in front. He slept well till about two A. M., then woke up, and was kept awake by the nausea. He had no special cause for anxiety nor for worry.

There was no motor paralysis, either in face or limbs, and sensation was normal. There was no change in the retina. He seemed very much exhausted and tired, which was thought to be due to the fact that he came towards the close of the day and had been delayed. He was told to rest; a small blister to back of the neck and soothing medicine were given.

Three days later, October 26th, I was called to see him. He had ridden home standing on the outside of a horse-car, and on reaching home was completely exhausted. I found him in bed, very restless, hands cold, head hot, with his hands on his forehead and over his eyes; pulse 54. He was incoherent, did not recognize me, would not or could not answer questions, opened his eyes when spoken to, then shut them; the pupils reacted only slightly to light.

The next day he was more rational, less restless, had no vomiting; the pupils were very sensitive to light. His bowels were obstinately constipated. On the 30th he had considerable delirium. His breathing was noted as peculiar, — a few short breaths, then longer ones, until a long, sighing inspiration, then short and rapid respiration again. This style of respiration continued for a day or so. The delirium and loss of intelligence became more decided; there was difficulty in swallowing, but no nausea. The bowels were only moved with difficulty; the urine was passed freely in the bed. The Cheyne-Stokes respiration reappeared. On November 2d there was a return of consciousness, and he took food without difficulty; the tongue was cleaning. He told me about himself intelligently. This apparent improvement was only of short duration, and he died on the night of November 5th.

This was clearly a case of cerebral meningitis, probably not tubercular. According to the history given by the patient himself when all his faculties were still unimpaired, the fall may have caused slight disturbance, but of itself does not seem to have been the chief factor in giving rise to the subsequent lesions. The overheating — a light sunstroke — in July was followed by immediate symptoms, which did not entirely cease until his final illness. He was conscious that noise and confusion disturbed him more than usual; slight exposure to the sun gave rise to headaches, as had not been the case previously, and this tendency increased as time went by.

As to this cause, Huguénin,[1] in describing the symptoms in meningitis caused by exposure to the sun, says that the disease begins "acutely, with a rapid rise in temperature, and often chills." The cases he reports had such a beginning. I believe, however, that insolation may give rise to more chronic processes, which may be revealed merely by persistent headache, perhaps only by a sense of weight over the head, or by inability for steady mental application, these symptoms, as a rule, gradually disappearing; but if other unfavorable causes combine a meningitis may arise subsequently, of which the commencement is concealed, or at least obscured, by the previous chronic condition.

The return of intelligence just before death is deserving of notice. The improvement was such as to give the family great encouragement that he would recover. I cannot say this is usually the case, but have frequently seen it, and it is necessary to be on the guard, and not be deceived by it.

The temperature was irregular, and showed a marked remission in the fever. There was no harmony between the temperature and the pulse. In tubercular meningitis this irregularity of temperature is the rule. In simple meningitis it is said to be more regular. Wunderlich says that, deciding from not very numerous cases, the rise soon becomes considerable, and is maintained continuously. Huguénin makes a similar statement for meningitis of the convexity, but under simple basilar meningitis acknowledges a group of cases in which no law governing the movements of temperature can be discovered. In truth, comparatively little seems to be known as to the course of temperature in simple meningitis; that it is sometimes very irregular is admitted. In the three cases under consideration it was irregular. The first case was chronic, and being probably syphilitic approaches very nearly to tubercular. (Tubercles cannot be absolutely excluded.) The second case seems to have been really typhoid fever; the meningitis, however, influenced the course of the temperature. The third case, as already said, was probably non-tubercular, but was more chronic than most cases of simple meningitis, and was undoubtedly the result of the sunstroke.

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[1] Ziemssen, xii., page 638.

ANATOMICAL EVIDENCES OF ABORTION.[1]

BY MEDICAL EXAMINER C. C. TOWER, M. D.

WHEN abortion occurs during the first two or three months of pregnancy, — which period corresponds to that of the greatest development of the decidua, — the embryo and its investing membranes are usually cast off entire. When such is the case, the extremities of the gland ducts, described by Friedländer as existing in the deeper layer of the decidua, may, according to Playfair, "be observed by a lens on the external or uterine surface" of that membrane "occupying the summit of minute projections separated from each other by depressions." This statement proves, if anything, that the deeper layer of the decidua — the germinal layer, which has been described as forming the new membrane after normal delivery — is expelled, and that the lining of the uterine cavity must be devoid of mucous membrane. The following quotation from Leishman shows that there is high obstetric authority for the belief that this membrane is separated not only during abortion, but during menstruation also: "Dr. Tyler Smith states that, having had several opportunities of examining the uteri of women who had died during menstruation, he found that the appearances presented were similar to those which are observed after abortion. '*In each of these cases*,' he says, '*I found the mucous membrane of the body of the uterus either in a state of dissolution or entirely wanting.*'" Our inability to accept this statement, so far as it applies to normal menstruation, may also shake our faith in its accuracy when applied to abortion. If he meant to say that the epithelial layer of the mucous membrane in either case was wanting, it would correspond with what is now generally accepted concerning the phenomena of menstruation, and, by analogy, with what we might expect in effluxion. Dr. Priestley, however, is entirely at variance with Dr. Tyler Smith here, as will appear from the following quotation: "In cases where dysmenorrhœal casts and *early ova* are expelled from the uterus, the conversion of the mucous membrane into decidual structures is probably less complete, and the deep stratum remains behind to prevent the denudation of the muscular coat." That the mucous membrane of the uterus *is* sometimes shed in abortion is conclusively shown by case No. XXIII. of Professor Dalton's recent Report on the Corpus Luteum, which will be introduced further on. In view of the testimony here adduced we must conclude that the presence or absence of a mucous membrane in the uterus may or may not characterize an abortion; that while its absence might be regarded as presumptive evidence in favor of that occurrence, its presence should not be interpreted as proof to the contrary.

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[1] Continued from page 301.

Changes in the substance of the womb dependent upon functional development of the organ will of necessity vary with the stage of pregnancy at which abortion occurs and upon the amount of subsequent contraction. The uterus of the nulliparous woman gives the following average measurements: —

Length externally	7½ centimetres.
Breadth	4½ centimetres.
Thickness	2½ centimetres.
Thickness of walls	10 to 15 millimetres.
Thickness of mucous membrane	2 to 3 millimetres.
During menstruation	6 to 8 millimetres.

The body and neck are of equal length. The color of the mucous membrane of the body is grayish-red or pinkish, that of the cervix pale. The latter often presents an arborescent appearance, which is sometimes also seen in the former, and due to the peculiar arrangement of minute blood-vessels. The shape of the uterine cavity on transverse section is triangular, its anterior and posterior walls being in close apposition. The cervical cavity is spindle-shaped. The weight of the whole organ, divested of surrounding tissues, is about thirty-two grammes.

In women who have borne children the size of the uterus is permanently increased, and its weight is nearly one fourth greater, the average being about thirty-eight grammes. The cavity is also larger and its contour more rounded. The length of the body is now slightly in excess of that of the cervix. The well-known changes in the neck and external os due to previous pregnancy need only to be mentioned. There is also a permanent enlargement of the blood-vessels in the multiparous organ.

Shortly after delivery at term the uterus measures in length from twenty to thirty-centimetres, and in width from ten to fifteen centimetres. Its parietes on section are from two to three and a half centimetres in thickness, and its weight is given at about seven hundred and fifty grammes. In an interesting case of criminal abortion, recently reported by Dr. W. J. Chenoweth,[1] in which the examination was made eighteen hours after death, the length of the uterine sac was about twenty centimetres, the width thirteen centimetres, and the thickness of the walls five or six millimetres. Probably in this case contraction of the organ was prevented by an extensive laceration which was found in the uterine wall. Pregnancy had advanced from five to six months. The weight of the womb was not given. Probably at the middle period of pregnancy the weight would fall between three hundred and five hundred grammes, and its length measure from ten to twenty centimetres.

Changes in the structure of the womb accompanying utero-gestation affect all the tissues, — peritoneal, muscular, and mucous, the arterial and venous system of vessels, and the glandular system. All become enormously hypertrophied. These changes are most noticeable in the muscular and venous structures, the round nucleated fibre cells of the former being transformed into fusiform cells of great length and size, their nuclei being also greatly enlarged, and the latter forming the uterine sinuses. During normal involution these tissues diminish by fatty degeneration, compression, and absorption, the disintegrated material being also largely excreted in the form of lochia. Whether during the diminution of the organ which takes place after abortion similar changes occur I am not positively informed, but such is probably the case. The tissue changes which attend evolution of the womb could scarcely be mistaken for any form or degree of abnormal development of the unimpregnated organ, and consequently should be classed among the evidences of abortion.

The importance of the existence of a corpus luteum as a sign of recent pregnancy is so great, in legal medicine, that a somewhat detailed description, borrowed from latest authorities, is reserved for this place. When menstruation is still going on, or is just accomplished, we should expect to find the cavity of the ruptured Graafian follicle filled with fluid blood (according to M. Coste with a bloody fluid), or with a recent bloody coagulum of a "deep opaque red color," and slightly adherent to the surrounding wall, which is smooth and "of an indefinite semi-transparent rosy color." This bloody mass, which is variously designated *corpus sanguineum* and *corpus hæmorrhagicum*, is a pretty constant sign of recent ovulation. "The corpora hæmorrhagica," says Orth, "are of the size of cherries, and appear as dark, or brownish-red, soft masses, according to their age." After the lapse of one or two weeks, whether pregnancy does or does not exist, we shall find, instead of the appearances just described, a similar ruptured follicle, containing a central reddish clot surrounded by a pale-yellowish convoluted wall. This yellowish body is called a *corpus luteum*, and is merely a transformed corpus sanguineum. "The recent corpus luteum," Orth further states, "is somewhat smaller (the size of a hazel-nut to that of a cherry stone); it has a yellowish border, one or two millimetres in width, which is usually somewhat zigzag (convoluted), and a brown or grayish-brown interior."

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[1] Cincinnati Lancet and Reporter, May 10, 1879.

The process by which a "ruptured and bloody Graafian follicle" is transformed into a corpus luteum consists, according to Professor Dalton, "in a thickening and folding of the wall of the follicle, with the subsequent development of a yellow color in its substance, and in the condensation, shrinkage, and gradual decolorization of the contained clot." "The more recent the date of the menstrual flow the fresher is the clot in the cavity of a ruptured Graafian follicle, and the less change has taken place in its surrounding wall. A few days later the wall begins to be enlarged and thickened; and this enlargement, within a confined space, causes it to become folded upon itself in short, zigzag reduplications, mainly at the deeper part of the follicle. As the process goes on, the entire wall participates in the hypertrophy. Its convolutions are extended and multiplied, often in a very complicated manner. They project into the cavity of the follicle, encroach upon the central clot, and become pressed against each other, forming by their coalescence a thickened, glandular-looking envelope. Previously to the rupture of a Graafian follicle its wall is a uniformly smooth, vascular membrane, not more than one fourth of a millimetre in thickness. After the rupture, its thickness increases to one half a millimetre; but as the foldings above described grow in number and in depth, and crowd against each other laterally, the apparent thickness of the envelope thus formed becomes much greater, and may reach three or even four millimetres, especially at the deepest part of the follicle."

"In this way there is produced, during the intermenstrual period, a *corpus luteum*, occupying the substance of the ovary immediately beneath the superficial cicatrix which marks the site of the ruptured follicle." "At this time," which probably corresponds to about the twentieth day after the last menstrual flow, "the central clot is red and gelatinous, while the convoluted wall is of a light, rosy hue, mixed with more or less of a yellowish tint." "Subsequently," in the unimpregnated condition of the womb, "the whole structure diminishes in size, and the convoluted wall assumes a more decided yellow," so that when the month has expired, and another Graafian follicle has ruptured, and a new corpus sanguineum is formed, it has already entered upon its retrograde course. The corpus luteum of menstruation, therefore, having arrived at its highest development about the end of the third week of its existence, henceforth, by a process of atrophy and degeneration, gradually diminishes in size and weight, loses its distinctive characters, and gives place to fresh formations with each recurrence of the menses.

At the end of the fourth month it has entirely disappeared. On examination of the ovaries of a healthy woman, towards the close of an intermenstrual period, we should expect to find in one or both of them corpora lutea in various stages of growth and decline: that dependent upon the last menstruation being nearly or quite complete in its development; that corresponding to the next previous menstrual flow being in a retrograde condition; and a third, which represents the remains of a ruptured follicle still a month further back, being in an obsolete state and almost entirely absorbed, so that in a few weeks more no trace of its existence could be discovered. If the examination of the ovaries be carefully conducted, we should further observe that "a number of Graafian follicles approaching maturity are also visible at the same time, one of them being almost always perceptibly larger and more prominent than the rest."

The changes in size and weight which take place in an ordinary corpus luteum during the several stages of its physiological growth and decay can be best illustrated by reference to actual measurements carefully made by Professor Dalton and recorded in his latest paper. I take the liberty of tabulating for my present purpose the following results: —

CORPUS LUTEUM OF MENSTRUATION.

Age.	Stage of Development.	Weight in Milligrammes.	Diameter Measurement in Millimetres.			Volume in Cubic Centimetres.
			Width.	Depth.	Thickness.	
2 days.	Initial.	380	15	10	Not given.	0.4
10 days.	Crescent.	810	14	13	Not given.	0.7
20 days.	Maximum.	1200	13	14	9.5	1.1
6 weeks.	Retrograde.	90	8	5	Not given.	0.1
10 weeks.	Obsolete.	20	6	2	Not given.	Not given.

Although the corpus luteum of pregnancy, during the first month, differs in no essential respect from the corpus luteum of menstruation, yet, as we have seen, the latter has already commenced its retrograde course when ovulation is again accomplished, and a fresh corpus hæmorrhagicum is formed. In pregnancy, however, ovulation being suspended, the corpus luteum pursues an entirely different course of development and retrocession. "After the first month," according to Professor Dalton's latest declaration, "it continues to increase in size, or at least does not diminish; and its convoluted wall assumes the strong, yellow hue which has given rise to its name. At the same time, the central clot becomes fully decolorized without losing greatly in substance, growing denser and firmer, in proportion as it diminishes in bulk. Consequently the corpus luteum, by the end of the second month, appears as a voluminous yellow envelope, surrounding a white, tolerably firm, fibrinous coagulum. . . . The whole forms a flattened, roundish, or ovoidal mass, of sufficient consistency to be felt as a well-defined tumor in the subtance of the ovary."

"Beyond a certain period of pregnancy, the date of which is not precisely known, the corpus luteum diminishes in size, and loses the freshness of its yellow hue. It still retains the characteristic features of its original structure, and the connection of its central clot with the surface of the ovary continues visible throughout. At the same time its different parts become more closely adherent to each other, and the central clot often assumes the appearance of a whitish, radiating, or star-shaped, cicatrix-like mass. At the end of pregnancy the corpus luteum is reduced in volume to about one half of a cubic centimetre, and in weight to about five hundred milligrammes."

"The appearance of the ovaries is further modified during pregnancy by the disappearance of the earlier corpora lutea and the inactivity of the Graafian follicles." . . . "When gestation, therefore, has advanced to its middle or later periods, there is but one corpus luteum to be found in the ovaries. Those of a previous date have by this time disappeared, and no subsequent production of them has taken place."

The above copious quotations from the recent Report on the Corpus Luteum, by J. C. Dalton, M. D., present the most important of the diagnostic characters of this peculiar structure. Deviations from the appearances here detailed, however, sometimes occur, and as some of them have a bearing on matters of medical jurisprudence they will be briefly alluded to in the author's words: —

"One of the variations in the structure of the corpus luteum at this time 'during pregnancy' is due to the presence or absence of a central cavity in the fibrinous clot. As a general rule the clot is continuous and of uniform solidity throughout. But sometimes there is, in its central part, a well-defined cavity or excavation, with smooth walls, and similar in form to the clot itself." It has occurred, according to Professor Dalton's estimate, in about one third the whole number of published cases. "It seems to be due to a special retention of serum during the absorption of the clot. . . . . It is not very plain why the same thing should not happen in the corpus luteum of menstruation, but, in point of fact, it does so very rarely. I have never seen such a cavity in the corpus luteum of menstruating women, and know of but one recorded instance of that kind."

A formation in the ovary which, although not a sequence of impregnation, may give rise to doubt as to its true character, unless clearly understood, is what is termed "saccular degeneration of the Graafian follicle." "This degeneration consists in a collapse of the follicle from reabsorption of its contents, together with slight thickening and condensation of its membranous wall. By this process the follicle loses its normal physiological character, and passes into a condition of permanent inactivity. . . . The healthy Graafian follicle is globular in form, and consists of a thin, flexible, vascular, nearly transparent membranous wall, enclosing a clear, colorless fluid. When undergoing the saccular degeneration, its wall becomes thickened, opaque, whitish, and somewhat rigid, as if assuming a slightly cartilaginous consistency. The follicle is also a little puckered; and as its fluid contents disappear it becomes collapsed, so that its opposite surfaces are in contact with each other. It is still distinct from the adjacent ovarian tissue, and may be readily enucleated by the forceps, as in the healthy condition."

"In some cases the thickening of the follicular wall increases to 1.5 or two millimetres, and the degenerated follicle then presents an appearance of unusual solidity." "In size the degenerated follicles usually measure from three to five millimetres. Sometimes," as in a case mentioned by the author, "their longest diameter may reach eight millimetres." In the case alluded to, the wall of the follicle was "of a dead-white color, firm, and nearly homogeneous in texture, not distinctly convoluted, but enclosing an empty cavity with irregular, zigzag outlines. Its volume was 0.15 cubic centimetre, and its weight seventy-seven milligrammes."

"Such a formation as this is the only structure which deserves the name of a 'false corpus luteum.' It could hardly be mistaken, however, for a genuine corpus luteum except on very superficial examination. The most obvious distinction between the two is as follows: The real corpus luteum is superficial in situation. It is formed from a ruptured Graafian follicle, and its central cavity, with the contained clot, is always connected with a cicatrix on the surface of the ovary. The 'false corpus luteum,' on the other hand, is a Graafian follicle which has never ruptured. It is often deeply seated in the substance of the ovary, and it is not connected with any external cicatrix. The white color of its puckered wall and the absence of any clot or residuum in its central cavity are additional marks which serve to fix its character."

Other irregularities in the appearance of the corpus luteum which are sometimes met with, and with which the medical examiner should be familiar, are in some instances due to causes connected with the establishment or cessation of the function of menstruation, and in others to morbid changes which have taken place in the Graafian follicles. They need only be barely mentioned here. For a study of them the reader is referred to works on the subject, and especially to Professor Dalton's published reports. They appear, however, to be associated with abnormalities of menstruation, and to be mostly, if not wholly, independent of pregnancy. Thus, "menstruation may take place without the rupture of Graafian follicles or the formation of corpora lutea;" a corpus luteum may be formed "without the central clot;" "hæmorrhage" may take place "into a Graafian follicle or the ovarian tissue without the formation of corpora lutea;" "blackish discoloration in and around old corpora lutea" may occur, and "gelatinous and fibrinous exudations into the cavity of Graafian follicles" may be sometimes found. These morbid exudations occasionally occupy as much as half the space of the entire ovary. Concerning the blackish discoloration, it is important to know that it is seen only in retrograde corpora lutea of menstruation. For, says Professor Dalton, "in most instances, as the corpus luteum passes into a retrograde condition the central clot becomes semi-transparent and of a lighter red color, afterward of a mottled greenish or slightly brownish hue, and at last is completely decolorized. The blackish tint in question shows itself only in very old corpora lutea, which have become much reduced in size, and shriveled or compressed."

Although Professor Dalton, with his characteristic carefulness of statement, does not in his paper inform us at what period of pregnancy the corpus luteum arrives at its highest stage of development, — a point of considerable importance to the medical jurist, — yet we are not without some information on this matter. On reference to his work on Human Physiology, we find that in comparing the corpus luteum of pregnancy with that of menstruation he gives the size of the former at two months to be seven eighths of an inch (twenty-two millimetres) in diameter, and at six months "still as large as at end of second month." Later observations, however, may have changed his opinion in this particular. M. Coste, who has had rare opportunities for studying this subject, is quoted by Professor Austin Flint, Jr., in his Physiology of Man, as saying: —

"I have followed with the greatest care, in the pregnant female, all the phases of this retrocession 'of the corpus luteum' of pregnancy. This commences to be really appreciable toward the end of the third month. During the fourth month the corpus luteum diminishes by nearly a third, and toward the end of the fifth, it is ordinarily reduced one half. . . . Nevertheless, there is nothing absolute in the retrograde progress of this phenomenon. I have seen women dead at the sixth and even the eighth month of pregnancy, present corpora lutea as voluminous as others at the fourth month."

The inference from these references is that during the third, fourth, and fifth months of pregnancy the corpus luteum is in a high state of development. As abortions, especially criminal abortions, are most likely to occur during these months, any evidence which can be derived from the existence of a corpus luteum will then be of its greatest value, because less liable to be misinterpreted.

(*To be concluded.*)

RECENT PROGRESS IN ANATOMY.

BY THOMAS DWIGHT, M. D.

The Division of Cartilage Cells and Some New Forms. — Some decidedly new views concerning the division of cartilage cells, advanced by Bütschli,[1] induced Dr. W. S. Bigelow[2] to undertake an extensive series of investigations. Bütschli denied the universally accepted doctrine that the nucleus is the first and the cell-body the last to subdivide, and asserted that the division was simultaneous. He admitted the existence of cells with two nuclei, but failed to find reason to believe that this condition was a step toward subdivision. Dr. Bigelow describes and figures a number of appearances, which we agree with him in thinking represent successive stages of division, and which seem to strengthen the old theory in opposition to Bütschli's views.

Dr. Bigelow, moreover, calls attention to certain cells in the cartilaginous sclerotic of the frog which have not been described, though similar ones have been observed in fishes. They are much larger than ordinary cartilage cells, and of very fantastic shapes. They often contain two nuclei. There is more ground substance than usual around them, and this sometimes shows concentric stripes, and is stained by gold chloride. The neighboring cells occasionally present a radiating arrangement around them.

The Structure of the Medullated Nerve Fibre. — Ten years ago this was one of the few questions concerning which the histological mind was at rest. All accepted the axis-cylinder, the white substance or medulla surrounding it, and the sheath of Schwann inclosing the whole. The first disturber of the peace was Ranvier, who, in 1871–72, described his "*étranglements annulaires*," which were a series of constrictions interrupting the medulla. But one nucleus in the sheath of Schwann was found between each two constrictions. Some years later Lautermann described another kind of interruption of the white substance, which appeared to consist of a number of irregular pieces fitted into one another like pieces of stove-pipe. A good deal of discussion has arisen concerning these perplexing discoveries. The latest writer is Bernard Rawitz,[3] who has studied the nerves in the lung of the curarized frog, and then has treated and maltreated nerves in nearly every conceivable way. His conclusions seem to us very judicious. We are glad to find him insisting on the significance of the double outline. It does not exist in perfectly fresh nerves in which the axis-cylinder and the medulla appear as one. When it appears it represents the whole of the medulla; that is to say, the axis-cylinder takes up all the space between the inner lines. The appearances described by Lautermann are due to decomposition. Ranvier's constrictions, however, are true structures. They are formed by rings surrounding the axis-cylinder and dividing the medulla. At these points the sheath is thickened, and encroaches on the cavity of the fibre.

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[1] Zeitschrift für wissenschaftliche Zoologie, Bd. xxix.

[2] Archiv für mikroskopische Anatomie, Bd. xvi. Heft 3.

[3] Archiv für Anatomie und Entwickelungsgeschichte, 1879, Heft 1 and 2.

The Human Spinal Column at Different Ages.[1] — The changes in the proportions of the different dimensions and different regions of the column in the progress from birth to adult life have been traced by Professor Aeby with the patience and accuracy for which German anatomists are celebrated. He has measured the length of the column along both the front and the back of the bodies of the vertebræ, the length of the regions, of the individual vertebræ, and of the cartilages. He has made various studies of the proportions. He has also measured the bodies of the vertebræ both from side to side, and from before backward, and he has done the same to the vertebral canal.

For this work he has measured eight new-born children, seven of six months, one boy of two years, one girl of four, one boy of eleven, two girls of sixteen, eight grown women, and five grown men.

Beside all this he has studied the growth of the column before birth by measurements of fifteen fœtuses.

A minute analysis of this valuable paper would far exceed our limits, so we must confine ourselves to Aeby's conclusions with a few comments: —

(1.) "The proportions of the spinal column of the child and of the adult are essentially different."

(2.) "The lumbar region in the child is relatively shorter than in the adult, and the cervical proportionally longer. The dorsal region is of the same relative value in both."

(3.) "The adult spine is more slender than that of the child in all its parts, but especially in the upper ones. The consequent loss of breadth is not only more general, but on the whole more marked, than that of thickness" (from before backward).

(4.) "The vertebral canal of the adult is, as a whole, smaller than that of the child, not only in proportion to the length of the column, but also to the transverse diameter of the vertebræ."

(5.) "The column of the child and of the adult contain proportionally the same amount of cartilage, but differently divided."

We reproduce a part of Aeby's table showing the proportion of the cartilage to the whole of each region, the latter being considered one hundred. We give his averages of new-born children and of adult men and women, omitting the intermediate stages.

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[1] Die Alterverschiedenheiten der menschlichen Wirbelsäule. Archiv für Anatomie und Entwickelungsgeschichte, 1879, Heft 1 and 2.

	Cervical Region	Dorsal Region.	Lumbar Region.
New-born child	26.4	31.1	35.2
Woman	20.7	18.3	30.7
Man	24.5	24.0	36.6

We fail to see that these figures authorize the conclusion. In the female columns there seems to be a general decrease in the amount of cartilage. It is to be noticed that in both the male and female spines the dorsal region has decidedly less cartilage (relatively) than at birth. We imagine that in this matter there is a vast deal of individual variation. The discrepancy of the statements of authors as to the relative quantity of bone and cartilage in the different regions is well known.

(6.) "The separate pieces of the spine of the child are less different than those of the adult."

(7.) "Sex has no influence on the course and conclusion of the whole process of development."

We are inclined to believe that practically (as for estimating the length of missing portions) there is no, or very little, difference between the proportions of the male and female spines. The number examined, however, is hardly sufficient to show that sex is without influence. The table given just above does not confirm this view.

(8.) "The spinal column follows a uniform plan of development from the beginning. The changes of form after birth are but the continuation of similar changes before it."

This is to say that the changes mentioned in the second conclusion are in continuation of similar ones preceding it. The author shows this by his measurements of fœtuses. He divides them into groups, according to the length of the spine, the first group comprising those in which it is less than ten millimetres. In the following table the same method of classification is applied to older spines. The table shows the relative length of each part of the spine, the value of the whole being 100: —

Length of Spine in Millimetres.	Neck.	Back.	Loins.
Up to 10	31.8	46.6	22.0
10 to 20	29.3	47.2	23.3
20 to 40	27.6	48.7	23.7
40 to 80	26.8	48.3	24.9
80 to 170 (new-born child)	25.1	48.0	26.9
170 to 340 (four years)	23.9	47.4	28.7
340 to 582 (adult)	21.5	46.0	32.3

This shows very plainly that the relative length of the dorsal region is practically always the same, but that in the earliest stages the neck is relatively long (nearly one third) and the lumbar region relatively short (little more than one fifth). The neck is continually losing its advantage, so that at about the time of birth the lumbar region catches up with it, soon passes it, and in the adult we find that these two regions have almost precisely interchanged their original relative values.

Inequality in Length of the Legs. — Dr. J. G. Garson [1] has made a really valuable contribution to the literature of the question of the inequality in length of the legs, which has of late been a good deal discussed. The reader is referred to the recent Report on Orthopædic Surgery, by Dr. Bradford,[2] for an account of what had previously been done. The measurements had been made only on living persons, with the exception of eight skeletons measured by Dr. Roberts [3] and eleven by the writer of the present report.[4] These measurements of skeletons showed that asymmetry was the rule, but the number of observations was too small to be quite conclusive. Dr. Garson has measured the lower extremities, both femora and tibiæ, of seventy skeletons of various ages and races in the collection of the Royal College of Surgeons. The measurements were made in millimetres. Only seven (ten per cent.) of the extremities were of equal length, and only two of these (and consequently of the whole seventy) had the femora and tibiæ respectively equal. The left leg was longer than the right in thirty-eight cases, the average excess being 4.8 mm., while the right was the longer in twenty-five cases, the average excess being only 3.3 mm. It is curious to notice the share the separate bones have in bringing about these discrepancies. There is much more tendency to variation in the femur than in the tibia. Thus the femora were equal only nine times, while the tibiæ were so in seventeen cases. The left femur was the longer in forty-one legs and the right in twenty, while the right tibia was the longer in twenty-nine and the left in twenty-four. By further analysis of Dr. Garson's table we find that in twenty-four cases either the femora or tibiæ were respectively equal, the difference of length (if any) in the legs depending on one segment only. Now of the forty-six cases in which both the femora and tibiæ presented differences, the longer femur and tibia were on the same side in twenty-one skeletons, and in twenty-five on opposite sides.

Supernumerary Nipples and Mammæ. — We are indebted to Dr. J. Mitchell Bruce [5] for some interesting researches on this subject. The most striking result of his studies is to show that anomalies of this class are not so uncommon as they are generally supposed to be, and that they occur more frequently in men than in women. Of ninety-two recorded cases collected by Leichtenstern,[6] seventy were in women. The erroneous idea that females are more subject than males to this anomaly no doubt arises from the fact that the phenomena of pregnancy and lactation call attention to the thoracic region. Dr. Bruce judiciously points out that we are now liable to fall into the opposite error, owing to the greater facility for the indiscriminate examination of men. Dr. Bruce is, we believe, the first to present any statistics of the frequency of these appearances. He examined 3956 patients at the Hospital for Consumption, Brompton, and found among them 61 individuals with extra breasts or nipples. Of these patients 1645 were males, among whom 47 (2.857 per cent.) were thus affected, and 2311 were females, of whom only 14 (.605 per cent.) were affected. The women, however, were less thoroughly examined, and some cases probably escaped notice.

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[1] Journal of Anatomy and Physiology, July, 1879.

[2] The JOURNAL, May 15, 1879.

[3] Philadelphia Medical Times, August 3, 1878.

[4] The Identification of the Human Skeleton.

[5] Journal of Anatomy and Physiology, July, 1879

[6] Virchow's Archiv, Band lxxiii., 1878.

In order to avoid this cause of error, Dr. Bruce systematically examined a series of 315 persons taken indiscriminately. Of these 24 persons presented the anomaly, and in four it was doubtful whether it existed or not. Of the 315 persons 207 were males, and of these 19 (9.11 per cent.) had extra nipples; 104 were women, and of these only five (4.807 per cent.) were similarly favored. Thus it appears that the smaller series of accurate observations gives quite different results from the larger one. It is to be noticed that the 315 persons are a part of the 3956.

The supernumerary nipple was usually single, and more frequently on the left than on the right. It was always on the front of the body below and within the normal one. In a very few cases it was in the upper part of the abdominal region.

It is a remarkable fact that in no case was the anomaly found to be hereditary, but for obvious reasons this question could not be very thoroughly investigated.

New Accessory Thyroid Glands. — Several variations of the thyroid body have been described, and detached lobes are not unknown, but the peculiarity of those described by Kadyi[1] is in their position. Gruber has found the central lobe extending behind the hyoid bone, but we are not aware that it has been seen higher till now. Kadyi found it in front of the hyoid bone and above the mylo-hyoid; consequently in the region of the mouth. The structure was very small, the largest being no bigger than a pea. Microscopical examination revealed the structure of the thyroid. Kadyi observed this anomaly in ten subjects of sixty-eight which he examined for it. He finds it advisable to divide these extra glands into *glandulæ præhyoides* and *glandulæ suprahyoides.* Both are situated in the median line, the former being just in front of the hyoid between the genio-hyoids, the latter apparently between the genioglossi and touching the septum of the tongue. The two kinds may coexist. Kadyi has found a series of extra-thyroid glands in the neck of a fœtus of five months. They were four in number, three being one above the other in the neck, the fourth being a præhyoid. The author is inclined to consider these remnants of the thyroid, which he believes is relatively very large at an early period and surrounds the body of the hyoid. The author himself calls attention to a monograph, which appeared at about the same time, on the same subject by Zuckerkandl, who had made the same discovery independently. He states that Zuckerkandl's results are essentially the same as his own, but that Zuckerkandl, having more new-born children to dissect, had found the extra gland more frequently, and had also noticed some uncommon forms.

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[1] Ueber accessorische Schilddrusenläppchen, etc. Archiv für Anatomie und Entwickelungsgeschichte, 1879, Heft 3 and 4.

PROCEEDINGS OF THE AMERICAN DERMATOLOGICAL ASSOCIATION.[1]

The last paper of the morning session of the second day, August 27th, was on the Tattooing of Nævi, by Dr. S. Sherwell, of Brooklyn, which, he stated, was supplementary to a previous one on the same subject that had been read before the New York Dermatological Society, and afterwards published in the *Archives of Dermatology*. In it he described a case in which the good effects of the method were very satisfactorily shown, and at the conclusion of the reading of it he introduced the patient upon whom the procedure had been practiced. This was an unmarried lady, twenty-seven years of age, who had a nævus of the "port-wine stain" variety covering the whole of the chin, and involving the vermilion border of the lip. Near the centre of the left cheek there had also been a large dark spot of similar character. Since September, 1877, Dr. Sherwell had tattooed the nævus twice over its entire surface, with the exception of the spot on the cheek, which was cured by a single operation. On one of these occasions the needles used were dipped in a solution of chromic, and in the other of carbolic, acid. Twice afterwards the areas of most discoloration remaining were selected and operated upon in a similar manner, and it was expected that one final tattooing, to be performed during the coming autumn, would complete the cure. While this method was neither painless nor instantaneous, he believed that it had advantages over all others with which he was acquainted. Since his last paper Dr. Sherwell said that he had not changed his after-treatment, and that he still had great confidence in the utility of the application of collodion. The difficulty and tediousness of cure were about in inverse ratio to the size of the nævus, and parts that were pendulous, like the lip, were the most difficult and painful to operate upon.

The subject of the treatment of vascular nævi was then discussed by Drs. Heitzmann, White, Hardaway, Hyde, Fox, and the reader of the paper. Drs. Hardaway and Hyde had both been quite successful with electrolysis, and the former dwelt upon the importance of using a number of fine needles instead of a single one in this method. Dr. White said that he was particularly glad to hear the views of the different gentlemen in regard to this matter, as personally he had not yet been able to deal with the affection in a satisfactory manner. Notably he had failed in two cases in which he had practiced the plan recommended so highly by Mr. Squire, of London, although he had followed the directions given by him to the letter, and he had consequently resolved never to attempt it again.

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[1] Concluded from page 345.

The report of the committee on statistics was now made through its chairman, Dr. White, and it contained a special report in regard to the subject of leprosy, with a statement concerning this disease in the Northwest by Dr. Hyde, of Chicago.

Then the committee on classification and nomenclature also made its annual report through the chairman, Dr. Duhring. The only change recommended in the classification adopted last year was the placing of carcinoma under a separate subdivision, marked No. 4, of Class VI. (new growths), and at the conclusion of the report this was accepted by a vote of the association.

At the afternoon session a report of a case of multiple tumors of the skin, accompanied with intense pruritus, was read by Dr. Hardaway. The patient was an unmarried lady, fifty-one years of age, in whom the skin disease referred to had existed for twenty-two years. One of the most curious points about it was that it affected only the hands, arms, feet, and legs, stopping abruptly at the shoulders and knees. The principal lesions were tubercles and tumors, varying from the size of a small pea to that of a hickory nut, the two being in about equal proportions. In their natural condition they were always covered with thickened epidermis (presenting a horny feel to the touch), but this was generally removed by scratching. There were also numerous scratch-marks, with resulting pigmentation, over a great portion of the parts affected. As far as could be made out, no new lesions had appeared within sixteen months, nor had any of the old ones passed away. Indeed, the patient was confident that none had ever disappeared from the very first.

The pruritus, which was the prominent feature, had been almost unbearable, but it was thought to have diminished somewhat during the last few months. Iodide of potassium, arsenic, mercury, and other remedies had been tried, and cauterization of the tumors had also been practiced. Dr. Hardaway would not venture to give the affection a name, but said that analogies to giant prurigo and urticaria pigmentosa were suggested by it. A microscopical examination of specimens from the lesions, made by Dr. Heitzmann, showed that the disease was an inflammatory affection of the upper layers of the skin, there being hyperplasia of both the epithelial and connective tissue.

Dr. Heitzmann, in his remarks on the case, stated that it was altogether unique, as he had never seen or heard of anything like it.

Next followed a Supplement to a Case of Inflammatory Fungoid Neoplasm, by Dr. Duhring. This was the remarkable case which had been reported by him at the meeting of the association last year, when he had had the opportunity of presenting the patient in person. It had terminated fatally on the 5th of May, 1879. The autopsy revealed the fact that none of the internal organs were affected with the disease except the bladder, on the walls of which there was a tumor corresponding in character to those on the exterior portions of the body. Dr. Duhring regarded it as most probably an inflammatory affection, although some of the microscopical features seemed to point towards sarcoma, and considered that it was identical in character with a case of Piffard's, referred to last year, and two that had been reported in Vienna by Geber and Hebra.

Dr. Heitzmann, on the other hand, took the ground that the disease was distinctly sarcomatous (although it certainly presented some unusual clinical features), and said that it was on this account that he had made the unfavorable prognosis in the case that he did last year.

The next paper was one on A Variety of Molluscum Verrucosum presenting certain Unusual Features, by Dr. Hyde. The patient was a native of Germany, thirty-five years of age, with a good family history, and presenting no evidence of syphilis. Between two and three years ago he first noticed a number of spots on the left buttock, which were as large as pin-heads and of a white color. They spread over both thighs, finally exhibiting the features visible at the time the case was first seen (August 16, 1876), and at the end of a year disappeared. Three months afterward the eruption again made its appearance, and when first examined by Dr. Hyde it presented the following appearances: The integument of the trunk, thighs, and legs to the tops of the boots, and, to a slight extent, the hands, was covered with bodies which looked like papulo-pustules, but which were found to contain neither pus, serum, nor any other fluid. The newer lesions were of a dead, whitish hue, resembling milium in their general appearance, and the older ones were of a delicate crimson, but all possessed the waxy-white summit which was the distinguishing characteristic of the eruption. They involved the entire thickness of the integument, and were surrounded by perfectly healthy skin. By January, 1878, the lesions had almost disappeared; but as the warm weather came on, in the following spring, there was a marked recurrence of the trouble. During the present season, however, the patient has been entirely free from the disease. Owing to certain circumstances which Dr. Hyde mentioned, no microscopical examination of the lesion was made.

It was stated that the diagnosis was not an easy one, and Dr. Hyde discussed the probability of its being a telangiectasic or a lymphangiomatous new growth. After referring to various authorities, and mentioning particularly Hutchinson's cases of molluscum contagiosum, he quoted a letter which he had received from Professor Kaposi, of Vienna, in regard to the case, and said that in deference to the views stated therein he had decided that it was probably one of molluscum verrucosum.

The first paper read on the third day, August 28th, was one by Dr. White, on Ætiology, and in it he combated with great force many of the popular fallacies, crude ideas, and erroneous opinions which are prevalent not only among the laity, but also among many of the profession. These, to a great extent, were primitive beliefs and theories which had been handed down from former generations in expressions of speech still in frequent use.

Three chief points were enlarged upon, namely: (1.) The inherent right of the skin to independent diseased action. (2.) The identity of the pathological processes found in the skin with those met with in other portions of the system. (3.) The applicability of the same methods of observation and induction employed in all other parts of the body to disease of the skin.

In the course of the paper he urged very strongly the local nature of cutaneous affections in general, and ridiculed the idea of diatheses and internal origin as many authorities entertained this; stating that such writers were too apt to magnify mere coincidence into essential cause. What Dr. White proposed was that all this "rubbish of superstition" and all these crude theories should be swept away, and then that a system should be built up which would be founded on a basis of observation, experience, and sound deduction.

This paper naturally gave rise to a prolonged discussion as to the connection of diseases of the skin with internal states of the system; for while a large part of the members present accepted Dr. White's views to a greater or less extent, some were strongly opposed to them, and were unwilling that they should go forth as the authoritative opinion of the association.

The next paper was on The Nature of Syphilis, by Dr. R. W. Taylor. After giving the views and theories of various authorities, he stated his own conclusions as follows:—

"Syphilis is a disease of the connective tissue, and not primarily of the lymphatics or of the blood-vessels, although the blood may be temporarily modified and may be the vehicle of contagion. The secretions of syphilitic lesions are found to consist of a serous fluid containing numerous shining granules or molecules, which are masses of protoplasm or germinal matter, holding the contagious properties of syphilis. These microscopic bodies are probably taken into the circulation by the lymphatics, and conveyed over the body. The fact that serum alone does not convey the syphilitic poison goes to prove that the corpuscles hold the contagious material.

"In the secondary period of syphilis these cells are very numerous, and the body may be covered with papules and tubercles composed of them. As the disease wanes, these lesions become more localized and fewer in number, and the blood is less contagious. Finally, these cells may be limited to a few gummous tumors; the blood no longer carries the molecules, and it loses its contagious properties. The cells no longer have a tendency to reproduction, which characterizes them in the early stages, but rather degenerate. Hence we consider the blood and the secretions in tertiary syphilis innocuous. . . . . The periods of latency observed in the course of syphilis are of interest, and may perhaps be explained in the following way: Each outburst is attended by the development and multiplication of the peculiar cells, which run their course and are finally absorbed. Some remain, and after a time are excited by unknown causes to activity. Thus repeated exacerbations may occur, each one depending upon the multiplication of cells remaining from a previous outburst. But each relapse is less active and less prolonged than its predecessor, until perhaps only one nodule, and that composed of effete cells, may remain. The disease is thus cured."

In the discussion which followed, Dr. Heitzmann said that he believed that the nature of syphilis was still a perfect puzzle, but that he had himself been for some time engaged in researches in regard to the subject which he hoped would eventually throw some light upon it.

The last paper read before the association was one by Dr. Hardaway on A Simple Method of obstructing the Varicose Vessels in Rosacea. This was by means of electrolysis, the plan being similar to that which he had adopted in the removal of superfluous hairs, as stated in a paper which he sent to the association last year. So far as he had had the opportunity of employing it, the results had been very satisfactory; but his experience had not been long with it, and he had brought the method forward at this time especially to induce others to make trial of it.

After remarks by Drs. White, Wigglesworth, Hyde, and Bulkley, the president made a brief address on assuming the chair for another year, and the association then adjourned. In the afternoon a clinical session was held at the New York Hospital, when a number of cases of unusual interest were presented by various members from New York and Brooklyn.

UTICA LUNATIC ASYLUM.

The superintendent's report for 1879 presents several points of interest which we can merely glance at. Dr. Gray notices a growing tendency to send patients to the country establishments, not only from almshouses, but from home, in order that they may be within easy reach of friends and relatives. This would not be objectionable in chronic cases, if the standard of treatment should be raised to correspond with state provision for the chronic insane at Willard Asylum. There may also both exist there as well as here, a proper dread of keeping weak-minded and usually harmless insane persons where they may not only injure themselves, but, as in frequent recent instances, destroy the lives of other inmates by setting fires or by wholesale poisoning.

The number admitted during the year was 427. The per cent. of recoveries, 33.72. Average per cent. of recoveries for thirty-six years, 37.5. The increased frequency of general paralysis is shown by a table running back to 1849. Previous to 1863 the annual number admitted with this disease averaged but five; since that year, twenty-one.

The pathological report shows a commendable effort to advance our knowledge of the cause of insanity. Great stress is laid on the morbid appearances of the vessels of the brain, and the most frequent changes observed are mentioned. A microtome for cutting giant sections, including the whole brain, is minutely described, with the method of mounting them. An average brain will furnish two thousand sections, presenting a mass of the normal anatomy as well as of morbid conditions, likely to be of great value. An account of nine cases, with autopsies, is given in full.

Dr. Gray does not discourage general visiting, and thinks the patients rather like it. The number of general visitors last year was 7825; of visitors to patients, 1988. This, in addition to visits of officials, made a total of 10,000 persons who came in contact with the patients last year.

In an appendix Dr. Gray compares the laws of England relating to the commitment, detention, and discharge of insane persons with those of New York, and observes that in regard to the former the guarantees both for private and pauper patients are greater under the New York statutes, and we may add that the laws of Massachusetts are more stringent than either. In respect to supervision, the safeguards are about equal in all.

SMITH'S OPERATIVE SURGERY.[1]

In 1862, Dr. Stephen Smith prepared a hand-book of surgical operations specially designed for military practice. The success of this book was such that he was encouraged to enlarge it so as to embrace the surgery of civil practice. It might be supposed that such a book was but another addition to the already large list of works on operative surgery, but this is far from being the case. The design of the author has been to fill a place in surgical literature which, so far as we are aware, has not hitherto been occupied. He has endeavored to profit by the advice given by Malgaigne, that such a treatise, to satisfy all the requirements of the age, should for each operation discuss indications, exactly study the surgical anatomy, review all proceedings, and, after mature examination and judicious choice of the best, describe the manipulation with all the necessary details, point out the different modes of dressing, give a statistical account of successes and failures, and, finally, in autopsies, seek the causes of death in fatal cases. Of course no such elaboration has been attempted in the compact work which he has produced, but the latest teachings of the highest authorities have been embodied in the text, and in such a form and to such an extent as to make them most available and instructive to the reader. A great many subjects have been submitted to experts for sanction and revision, in which way the individual parts have been brought to a high standard of excellence; at the same time the work has been skillfully edited, so as to give to each part its proportionate space, and to preserve a uniformity of style which makes it peculiarly valuable for reference. Thus, while the opinions of all prominent writers are given, the text is not overladen and obscured by quotations or references, but a simple letter indicates, at the foot of the page, the name of the author whose views the writer is interpreting.

The book opens with a chapter on the obligations of one who undertakes a surgical case, four pages containing advice with which every young surgeon should be familiar. This and the next ten chapters are devoted to the Principles of Surgery, and embrace such subjects as the Examination, the Preparation, Hæmorrhage, Anæsthesia, the Operation, Dressings, Repair, etc. Under the latter title is a brief summary of a portion of surgical pathology with which, in its modern aspect, many surgeons are not too well acquainted. Its main points are clearly described. The present fashionable modes of dressing wounds are all to be found here by those interested in modern innovations; Guérin's cotton-wool dressings, which at any other period than the present would have had a well-deserved "run," are here given. Part II. is devoted to the bones and the joints; here we have the treatment of fractures and the various operations for resection all copiously illustrated, — not the old stand-by pictures, but a discriminating selection from such articles, when needed, which have not yet crept into the text-books. The Bellevue Hospital method of applying the stiff bandage is among them, with a brief explanation. Bigelow's hip and Taylor and Sayre's apparatus for the various joints are all here. The muscular system comes next, and, though short, contains much that is valuable; we may mention that not infrequent, but, to most, obscure affection of the palmar fascia, the pathology and treatment of which occupy a page. Following the circulatory, nervous, and tegumentary systems, where, by the way, there is a useful section on subcutaneous injection, comes Part VII. Here we find the digestive organs, where the operations on the mouth (teeth, tongue, tonsil, and salivary glands), pharynx, and œsophagus (foreign bodies, etc.), and stomach may be studied. Diseases of the rectum and the various cures for hernia are interesting chapters, and give all the practical points one needs in his daily rounds. Under respiratory organs one has a good deal about the treatment of disease of the nasal passages and larynx; also full directions for paracentesis thoracis. The chapters on the urinary and male generative organs give in a nutshell the views of such well-known men as Van Buren and Keyes, Bigelow, Otis, Gouley, Sir Henry Thompson, and others. The gynæcological chapters can hardly be said to be up to the prevailing high standard, although fairly represented. Part XL. includes the last three chapters on amputation, deformities, and compensative appliances, respectively.

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[1] *Manual of the Principles and Practice of Operative Surgery.* By Stephen Smith, A. M., M. D., Surgeon to Bellevue and St. Vincent Hospitals, New York. Boston: Houghton, Osgood & Co. 1879.

The book is in fact an epitome of practical surgery, including everything that can reasonably be included in that department. When we find that it contains nearly seven hundred pages and considerably over a thousand illustrations, it is a matter of surprise that so much can be compressed into a book small enough to carry easily in one's overcoat pocket. The type of the Riverside Press is, however, so clear, and the publisher's work so neatly and handsomely done, that the effort at condensation is not appreciable to the reader. The style of the book is indeed an elegant model of its kind. It is evidently intended as a ready book of reference for the busy practitioner, and could easily be stowed away in his satchel or under his "buggy" seat for any emergency.

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ATTFIELD'S CHEMISTRY.[1]

The present edition of this book has been enlarged by the addition of about twenty-five pages, so that it now includes the whole of the chemistry of the United States Pharmacopœia, of the British Pharmacopœia, and of the Pharmacopœia of India. The index contains three hundred new references relating to the additional material introduced. In an appendix are a number of useful tables. It is to be regretted that the author still retains the sections on Toxicology and Morbid Urine, Urinary Sediments, etc. The treatment of these subjects does not belong to a book of this kind, while in the present case there are the additional criticisms to be made that they are behind the recent advances in medical chemistry as regards the processes and tests which are given, and that the number of pages devoted to them (twenty-three) is wholly inadequate to give the student any available information on the subjects. With their omission the word "medical" should be removed from the title-page. The author has also been too brief in his treatment of the non-metallic elements. The addition of a few pages to this division of the subject would add to the value of the work as a text-book. In spite of these criticisms, however, the book is one which can be recommended. It contains much more general information than is usually found in books of this kind, and the subject matter is well arranged. It is especially adapted to the use of pharmaceutical students, and is by far the best text-book in chemistry for their purposes that we are acquainted with.

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[1] *Chemistry: General, Medical, and Pharmaceutical.* By John Attfield, M. A., Ph. D. Eighth Edition, revised by the Author. Philadelphia: Henry C. Lea. 1879.

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KLEIN AND SMITH'S ATLAS OF HISTOLOGY.[1]

The number before us is devoted to muscular fibre and to cerebro-spinal nerves. Unstriped muscle cells, according to Klein, consist of a fine sheath with transverse thickenings. The substance filling this sheath is held to be fibrillar, the fibrillæ of which anastomose with intra-nuclear net-work.

At this moment striped muscle occupies a great deal of attention, for the most opposite views are held by distinguished observers, and no view has been supported by sufficient evidence to make its acceptance obligatory. Most will agree that peculiar optical conditions occasion the perplexing effects which the fibre presents. Our object, therefore, is to discover some apparatus that will give similar appearances. The solutions have usually been made on theoretical grounds, and it must be admitted that nothing conclusive has been advanced. Under these circumstances we were in hopes that this work would give us some new light, but we find ourselves disappointed. The theory offered seems neither satisfactory nor in accordance with facts. In brief, we are told that we have the frame-work of the fibre and the muscular substance. The frame-work consists of the sarcolemma and a number of transverse partitions, called Krause's membranes, dividing it into compartments. As to the substance itself: "(*a*) each muscle compartment contains one broad, dim, *contractile disk*, highly refractive, composed of prismatic rods, sarcous elements; (*b*) a narrow, transparent, *lateral disk* placed at each end of the contractile disk, and consequently at the side of Krause's membrane." In some fibres the authors admit that the lateral disk contains a row of granules, but they apparently do not favor Schaefer's ideas. We have no space to discuss these views, which seem to us ingeniously wrong. The study of beetle muscle (especially that of the Gyrinus) has convinced us that the black stripes are of granular structure, and that the other shades of the ground substance are but optical effects. Krause's transverse membranes are quite problematical.

The chapter on the cerebro-spinal nerves is very satisfactory. It gives a condensed account of the results of recent work. We would call attention to the authors' belief that during life there is an albuminous fluid between the axis cylinder and the semifluid medullary substance around it. T. D.

[1] *Atlas of Histology.* By E. Klein, M. D., and E. Noble Smith, L. R. C. P. Part V. Philadelphia: J. B. Lippincott & Co. London: Smith, Elder & Co. 1879.

A TEXT-BOOK OF PHYSIOLOGY.[1]

This book presents relatively few points for commendation, while its shortcomings are very conspicuous. So far as mere mechanical structure is concerned the book is well written, well printed, and reads easily. Moreover, the author possesses the happy faculty of condensing his information with the least sacrifice of clearness. Beyond this we can say little to commend the work as a text-book for students or teachers.

Assuming to be a treatise on physiology, it devotes a very large space to anatomy and histology. We allow with Dr. Fulton that "a knowledge of histology is the key-stone to physiology," and we feel that no student should attempt the study of physiology without an appropriate knowledge of both histology and anatomy; but we do doubt the propriety of endeavoring to combine these various branches in one small text-book, to the evident detriment of them all. It seems a parody on physiology, for instance, after devoting numerous pages to the anatomy and histology of the liver, to snuff out the glycogenic function of that organ on one scant page. Indeed, this illustration may serve to indicate the character of the entire book.

In the small space left for physiology after the other branches have had their show, we find references to the simpler and most readily understood functions of various organs, but we search in vain for any discussion or elucidation of the many important problems which are agitating the working physiologists of the day. Moreover, in the absence of all reference to experiments or to other instrumentalities by which physiological knowledge is attained, we assume that Dr. Fulton is not a laboratory worker himself.

In regard to the accuracy of the subject matter of the book, we find but little to criticise. The information given, so far as it goes, is correct; but we must take exception to the emphatic manner in which the author has dealt with many problems, laying them down as clearly defined and settled, when they are still the subjects of active controversy and investigation. It is unfair to students when an author or teacher doles out his own personal convictions regarding disputed points, and bright students always resent such treatment.

In conclusion, we extend our sympathy to the medical students of Toronto that they are obliged to study so superficial a text-book, when other and more comprehensive books should be accessible to them.

THE PHARMACOPŒIA OF THE BRITISH HOSPITAL FOR DISEASES OF THE SKIN.

This little pocket collection of remedies contains a large number of formulæ of very unequal value in the treatment of skin diseases in the hands of those who have been trained to use them, and, lacking any sufficient directions for their employment, it is well-nigh valueless.

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[1] *A Text-Book of Physiology.* By J. Fulton, M. D., M. R. C. S. Eng., L. R. C. P. Lond. Second Edition. Philadelphia: Lindsay and Blakiston. Toronto: Willing and Williamson. 1879.

[2] *The Pharmacopœia of the British Hospital for Diseases of the Skin.* Edited by Balmanno Squire, M. B. London, Senior Surgeon to the Hospital. London: J. and A. Churchill. 1879.

THE YELLOW FEVER IN MEMPHIS.

THE failure of the English government, several years ago, to isolate Malta, and keep it free from a general epidemic of cholera, and the same want of success in limiting the disease to Beirut in 1873 by a military cordon, had led the sanitarians of Europe almost to acknowledge their utter inability to cope with any great infectious disease that might once get a foot-hold on any of the highways of commerce; and this opinion was not weakened by the success of the Russians, last winter, in checking any spread of the plague from a few little isolated hamlets on the banks of the Volga. Indeed, when the yellow fever appeared in Memphis, a great commercial centre, so early as the 9th of July, it seemed to many persons almost inevitable that it must extend in an ever-widening circle until the cold weather of the autumn should set in. Our correspondent from Memphis gives us a good idea of the exertions that are making in that city to prevent the pest from spreading northward, and generally over the country. But the real history of the long, tedious watch, the efforts to overcome popular prejudices, the hopeless task of trying to make the city really clean, in the true sense of that word, to say nothing of the opposition to intelligent, thorough sanitary work, will probably never appear in public print. We regard the limitation of the yellow fever to the city of Memphis and the prevention of its spread as one of the greatest feats of modern sanitary science. It has been due to work which has been well planned, and, in consideration of the many obstacles in the way of success, most admirably managed.

All of our accounts from the ill-fated city do not agree with our correspondent's view that Memphis is even reasonably clean. The discrepancy perhaps may be explained by Dr. Rush's famous remark that there is a difference between filth and dirt. The city carts may go about and collect the scrapings from the streets, and chloride of lime may be used by the ton, and yet with very little result in making a city free from filth, according to the sanitarian's use of that word, when thousands of cess-pools and privy vaults remain uncleaned and uncleanable for years, to fill the soil with unseen filth.

We appreciate the great work that must be done throughout this country before we can reasonably hope to be assured of immunity from destructive epidemics. If our climate has rendered us secure from the invasions of yellow fever, we do not mean to shut our eyes (we must hold our noses) to the fact that many of our own cities and towns are in a disgraceful condition, while parts of Boston, New Bedford, and Salem might almost rival Cologne in the high flavor of their prevalent stinks. We have made a start, however, and our towns are vastly better than they were even ten years ago. Certainly, we have nothing to equal or pretend to rival the condition of some of the cities recently reported on in the Bulletin of the National Board of Health. The country can fairly demand that such gross neglect of sanitary laws should be no longer tolerated. In the mean time we have only our highest admiration to express for the few men who have been heroically fighting the great plague this summer, and who fully realize the dangerous condition of their surroundings, without being able to convince their fellow-townsmen of the importance of the only measures that will give permanent relief.

MEDICAL NOTES.

— Dr. O. W. Holmes attained, the week before last, his seventieth birthday. The many complimentary notices given of this event, and the very high position assigned to him as poet and writer by the daily press, bespeak his great and justly earned popularity. Viewed from whatever standard, his reputation must be ranked as one of the highest order; but few who know him by his writings only can appreciate the privilege those have enjoyed who have had the opportunity to listen to his marvelous readings of his own poems and addresses. The spirit and fire of youth have in no way been dimmed by advancing years, as the past one has abundantly shown. His professional labors, although but little known to the world at large, have been highly prized by those whose wanderings among the thorny paths of anatomy have been cheered by the enlivening presence of their agreeable guide. We trust he may long be preserved to fulfill these grateful tasks, which it is in the power of but the gifted few to perform.

— The *British Medical Journal* states that at a meeting of psychologists in Heidelberg Professor Friedreich presented a patient who for the last three and a quarter years had been subject to clonic convulsions of the lips, the tongue, and the maxillary muscles. The lips were thrust forward; the tongue was rolled about in the mouth; the jaws opened and shut with great force, so that the tongue was frequently bitten. These convulsions continued even while the patient was asleep. The right pupil was enlarged; the pulse quick and somewhat irregular. Professor Friedreich thought these convulsions were caused by a circumscribed lesion of the medulla oblongata.

— A physician in Newark, deeming himself the victim of an unrighteous persecution, has thought it advisable to have a brother and two sisters arraigned on a charge of conspiracy to ruin his business, alleging in his complaint that they cut off his supply of water, obstructed the passages to his office, and whenever they saw a patient about to enter made the encouraging remark, "There goes another to be killed."

— At the Massachusetts General Hospital, where about one hundred and seventy beds are occupied, we find the following washing list for the week ending August 8th: Sheets, 1354; pillow-cases, 1015; towels, 2801; total number of all articles, 6928. This includes the patients' wash only. There are few hospitals where so much "clean linen" is to be seen.

NEW YORK.

— Sanitary Inspector Nealis, of the New York Board of Health, who is one of the most experienced officers in its service, has just made a thorough inspection of the water supply and drainage system of the various hotels and other resorts on Coney Island. Although no special cases of sickness have been reported as due to the lack of sanitary precautions existing there, it has been thought well to have the inspection made, in order that needed reforms may be undertaken before any alarming results ensue; and it is stated that almost all of the proprietors of these places have already signified their willingness to commence at once such improvements as are deemed necessary. With the exception of the two large hotels at the east end of the island, — the Manhattan and the Brighton Beach Hotel, — the sanitary condition of most of the premises is deplorable, and it will need concerted action on the part of all who are concerned in order that the proper remedies may be applied.

The following are some of the conclusions arrived at by Dr. Nealis: The lack of any general system is very evident, and at present, despite the excellent air and the tonic effects of the surf bathing to those who are equal to it, there is danger of malaria and low forms of fever from the conditions which the inspection shows to exist at many points of the island. There is scarcely a single place which would be permitted by the New York Board of Health under the rules of the sanitary code. What are called wells are simply excavations down to the permanent water-level through the sand; for the whole island being merely a sand-bank, it is impossible to dig a well in such a place. In such a soil or foundation, the digging of a receptacle for water is doubly hazardous, owing to the fact that anything placed on the surface soaks with the greatest ease to the bottom or water-level. The entire island, from end to end, requires first of all a full supply of wholesome water, which could be secured by any of the houses at a very slight cost; and this free water supply is essential to any proper sanitary system. The next question is, how to get rid of the water and the refuse together. The island being very flat, there might be difficulty in securing a proper fall; but perhaps this might be accomplished by raising the sewer drain on a sort of viaduct. If fall enough could not be had, however, it might be necessary to maintain pumping engines.

— The extra corps of physicians appointed by the board of health to make house-to-house visits in the tenement districts, for the purpose of caring for the sick children of the poor, have concluded their five weeks' term of service, and have been discharged. During this period they visited 24,828 houses occupied by 137,888 families, and prescribed for 4048 patients. In considering these numbers, however, it should be taken into account that most, if not all, of the houses and families were visited more than once. Assistant Sanitary Superintendent Janes thus concludes his report on the service of the extra corps of physicians: "The cases of sickness found were mostly of a diarrhœal character, and when met with in their incipiency were easily treated. As these visits were confined to the very poor, whether residing in tenements or shanties, the above figures can furnish only an approximation to the relative amount of sickness among the entire tenement population."

— During the past summer forty-four free excursions have been given by the managers of the Sea-Side Sanitarium to 9500 destitute sick children and their mothers. Of the children, 1625 spent a week at the sanitarium, the cost for their maintenance being $6476.

— The case of ex-Surgeon-General Hammond has been finally disposed of by his reinstatement, his name being placed on the retired list of the army although he is not entitled to receive back, present, or future pay, or allowance of any kind.

— On the occasion of his attaining his eightieth year, Professor Willard was visited at his country home at New Canaan, Conn., by a reporter of one of the New York dailies, and interviewed in regard to some of his reminiscences of the past and opinions about the present. When asked how the physicians of to-day compared with those of forty years ago, he replied, "To tell the truth, I do not think the general practitioner is any more successful, notwithstanding that there have been so many great discoveries. . . . . The medical men of to-day, I think, are inclined to go too much upon theory, and that is almost sure to result in occasional grave mistakes. . . . . I cannot help thinking, also, that we have too many specialists nowadays in this country." At a later portion of the interview he said, "Speaking of anæsthetics reminds me of the fact that I might have been the accidental discoverer of the application of ether as an anæsthetic. When I was a lecturer at the Pittsfield Medical School it was a common custom of the students to pour sulphuric ether on their handkerchiefs and inhale it for a stimulant. Some of them used to breathe it until it had put them into the second stage of activity and excitement; and if one of them had kept it up until the third stage had been reached, we might perhaps have made the discovery right there."

— After a few months' sojourn in England, Mr. Callender, F. R. S., has returned to America. He was one of the passengers of the Cunarder Gallia, which arrived in New York on the 2d of September.

LITERARY NOTES.

— Dr. William F. Whitney and Mr. F. H. Clark, apothecary to the Boston Dispensary, have prepared a compendium of the most important drugs with their doses according to the metric system. It is published by A. Williams & Co., in form sufficiently compact for the waistcoat pocket.

— The *Canada Medical and Surgical Journal* will in the future be edited by Drs. George Ross and W. A. Molson. It will appear on the 15th day of every month instead of the 1st, as heretofore.

— The Future Influence of the Johns Hopkins Hospital on the Medical Profession of Baltimore is the title of a pamphlet written and published by Dr. John Van Bibber. It was read before the Medical and Chirurgical Faculty of Maryland, and contains some criticism, undoubtedly fair, on the short-comings of existing institutions, as the medical schools, and the great advantage of the new hospital as an educational agency. The tone of the article would seem to imply that the Baltimore doctors do not appreciate the value of this almost unprecedented gift. It is difficult to believe this to be the case. The appearance of this article in the newspapers occasioned considerable excitement in medical circles in Baltimore.

— The Transactions of the above-mentioned society, although they do not include Dr. Van Bibber's paper, contain valuable material. The annual address is by Professor H. Newell Martin, one of the faculty of the new university. It is on the Physiology of Secretion, and is, no doubt, the result of his laboratory work as teacher in the new school. Dr. H. P. C. Wilson describes a modification of Paquelin's cautery, designed to prevent the evil effects of heat from the instrument, as, for example, upon the vagina in operations on the uterus. We have never experienced the disadvantages alluded to, and the apparatus designed seems to us to complicate the manipulation of the instrument. Among other papers we notice one on Yellow Fever, by Dr. Thomas B. Evans.

— The Proceedings of the Connecticut Medical Society appear in their usual neat form, edited, we presume, by Dr. C. W. Chamberlain, of Hartford, the secretary. The prevalence of diphtheria has brought out a number of papers on this subject. The existence of a state board of health is indicated in the increased attention to sanitation shown in these articles. The question of arsenic eating as a habit arising at a recent trial for murder in the State has induced Dr. P. A. Jewett to prepare a paper on this subject. It does not appear that the custom is at all prevalent in this country. Dr. A. M. Shew gives an account, with map, of the Insane Colony at Gheel, Belgium. Dr. R. S. Goodwin contributes an essay on Alcohol as a Therapeutic Agent. He takes ground against the modern fashion of over-stimulation in many diseases. Among these pneumonia is mentioned. Its use is also discountenanced in lactation and most chronic diseases, although the milder forms of stimulants are here advised. "It will always be invaluable," he says, "in sustaining the heart's action during alarming crises of disease." We should be glad to hear more on this subject.

LETTER FROM MEMPHIS.

Mr. Editor, — As Memphis now stands prominently before the world, a few lines taken from our daily history may prove interesting to your readers.

The announcement, July 9th, by the board of health of the death of Thomas Mulbrandon of yellow fever created the greatest panic among our people; but it was not until the announcements of Thursday, July 17th, that the panic seized our more hardened citizens. Thousands of the more timid had already departed for more salubrious climes, but now the exodus became general. The prompt depopulation of the city from the first was the means of saving thousands of lives here, and prevented the dissemination of the germs of the disease over the entire country, as evidenced by the continued good health of the surrounding neighborhood. Further depopulation is desirable, but for many reasons unattainable; the colored population, although they have been invited to camps, still persist in their foolhardy decision to remain. This action on their part is the result of bad leadership, and thus the lives of hundreds of their race will be sacrificed to serve the ends of a few for personal gain. According to the census of the city, completed July 28th, there are still 16,000 people in the city. Of these, however, only 4283 are white. Since the taking of the census many of the whites have gone to camps, leaving a much less number than that furnished by the census.

On the 12th of July Dr. Clark, of Nashville, secretary of the State Board of Health, visited Memphis, and after consultation with Dr. R. W. Mitchell, member of the National Board of Health, Dr. G. B. Thornton, president of the City Board of Health, and Hon. John Johnson, member of the State Board of Health, inaugurated a quarantine at this point to prevent the spread of yellow fever. Inspectors were appointed for the depots and transfer stations of each road, also for steamboats, according to the rules and regulations of the National Board. No person was allowed to leave the city who had not complied with these regulations. Baggage and mail were fumigated with sulphurous acid gas for three hours. This was and is still being done thoroughly. At first persons were allowed to take trunks with such articles of clothing as they desired to carry; but now, by order of the superintendent of quarantine, a valise containing only a change of linen is all that is permitted to be taken through the lines of quarantine. No person is allowed to leave or enter the city unless provided with certificates from the superintendent of quarantine, and state inspectors on the train see that this order is carried out. As conducted, it is absolutely impossible for any one to leave or come into the infected district without complying with the quarantine regulations.

As a very erroneous statement has been made that absolutely nothing was being done by the local authorities to arrest the spread of the disease, a few lines as to what has been and is actually being done may not be uninteresting. Isolation was first practiced, but is now discontinued for the reason that the entire city is infected. Disinfection, however, is pushed as far as is possible under the circumstances.[1] The National Board early in the action furnished money for every want, and for the means of giving disinfection a thorough trial. Men and carts were employed under the direction of competent men to disinfect premises and houses in which yellow fever had occurred. Bedding, etc., are usually burned, but when too valuable or the owner refuses to allow this, it is thoroughly disinfected by means of superheated steam, or by fumigation with sulphur. Copperas, lime, carbolic acid, etc., we have in abundance, and they are liberally used. Every privy vault in the city is being covered over with lime, effectually sealed with it, two and three barrels being emptied in each pit. There are about twenty-five hundred people in camps near the city. The sanitary condition of these camps is excellent; they are under military discipline, and no one is allowed to leave them. Quarantine camps are stationed some distance from the main camps, where new-comers are kept under surveillance for a period of ten days before being permitted to enter the general camps. Free rations are furnished only to those who go to camps. The president of the Shelby County Medical Society has appointed committees on ætiology, pathology, and treatment. A thorough investigation of yellow fever is expected, and a general report will be made by the society after the close of the epidemic. Last year the physicians were kept too busy to take notes at the bed-side, but now blanks for the purpose have been furnished by the society to its members, and each member is expected to hand in a complete report of each case to the secretary. Such a report will be of the greatest value to the profession at large, and it is hoped it will be complete.

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[1] I inclose a copy of the instructions for disinfecting, which have been issued to nurses or other persons having charge of sick-rooms.

Instructions for Disinfecting. — The nurse or other person having charge of the sick-room should observe the following precautions and directions: —

(1.) Remove from the sick-room all unnecessary furniture, carpets, woolen curtains, etc., and especially upholstered furniture. (2.) See that the utmost cleanliness is preserved and fresh air admitted into the room. This must be done without subjecting the sick person to draughts of air. (3.) All discharges from the patient should be received in vessels containing the copperas solution, or, when this cannot be done, should be immediately covered with the same solution. (4.) Cotton, woolen, linen, flannels, blankets, towels, etc., should be put in the boiling hot zinc-and-salt solution, introducing piece by piece, wetting each article thoroughly, and boiling for at least half an hour. (5.) The corpse should be thoroughly washed with the zinc-and-salt solution (using half a bucket of water). It should then be wrapped in a sheet wet with the same solution, and buried at once.

Zinc-and-Salt Solution, for Clothing, Bedding, etc. — Sulphate of zinc one half pound, common salt one quarter pound; dissolve in two gallons or one bucketful of hot water.

Copperas Solution, for Vessels used in the Sick-Room. — Copperas three pounds, dissolved in one bucketful of water.

N. B. Every case of yellow fever resulting in death or *recovery* must be promptly reported to this office, that the premises may be thoroughly disinfected.

JOHN JOHNSON, *Superintendent Quarantine.*

Thus far there have been 862 cases and 221 deaths. Although the disease is attacking the colored people, yet it is not so fatal in them as among the whites. In my next I will give some statistics on this point that may prove of value. One word in reference to the sanitary condition of Memphis: it has been characterized as the "filthiest city in the Union." There never was a greater mistake. To-day, in the midst of the epidemic, the work of general sanitation is going on. A large force of men and carts is kept constantly employed cleaning streets, alleys, and premises, and Memphis can justly boast of being the *cleanest* city in the Union.

MEDICO-LEGAL NOTES.

DAMAGES FOR FRACTURE.

The people of Franklin County, Mass., were entertained and their opinion on surgico-legal questions appealed to last week in a suit for malpractice. A man fractured his forearm, which was treated by Dr. Stimson, of Orange. Dr. Stimson requested his friend Dr. Barton, also of Orange, to assist him in the first dressing. Dr. Barton did so, but made no charge against the patient, for it was done as a favor to Dr. Stimson, and not at request of patient. This patient wants the treatment reinforced by heavy damages, as he claimed he had not and could not use the arm much since the fracture, on account of pain and weakness. He maintained action against both doctors. The arm was examined at the trial, a year and a half after the fracture, by ten or twelve surgeons, who all found the bones quite as good in every respect as the average of such cases. They also gave the patient encouragement to expect complete recovery of soft parts in time by proper use. Among those testifying to that effect were Drs. C. B. Porter of Massachusetts General Hospital and Harvard Medical College, J. Bates of Worcester, Russell of Winchendon, Lynde and Oliver of Athol, Goddard of Orange, etc. One, an eclectic, said he detected crepitus about two months after the fracture, although there was partial union. Several doctors, not eclectic, who examined the arm about the same time, failed to detect non-union. All find bony union now. The prosecuting attorney blandly declared that the young man (eclectic) was not a member of the Massachusetts Medical Society, yet was able to find what they could not. He (attorney) alluded to the poor laboring man and rich doctor, an allusion which appeared in his opinion necessary to adjust the scales of justice.

The jury were understood to stand firm through the whole of five hours' deliberation, seven for defendant and five for plaintiff. We certainly regard the case as interesting in illustration of the judgment and expectations of some people in such matters, and how unconsciously surgeons assume a responsibility in professional courtesy. G.

Greenfield, *August* 18, 1879.

SHORT COMMUNICATIONS.

PSEUDO-HYPERTROPHIC PARALYSIS.

Mr. Editor, — I notice in this week's Journal the report of a case by William Child, M. D., of Bath, N. H., of pseudo-hypertrophic paralysis. What is the pathology of the above-named disease? Yours truly, Enquirer.

Andover, N. H., *August* 25, 1879.

OBJECTIONS TO THE METRIC SYSTEM.

We have received a pamphlet containing remarks by Dr. J. F. Baldwin, addressed to the Ohio State Medical Society. They are published by the request of the society. We give a few extracts: —

The consequences, so far as the general public is concerned, may be summed up briefly as follows: —

(1.) The new units are not, in most respects, as convenient as our old ones, while the subdivisions are unnatural. We naturally divide into halves, quarters, etc., but never into tenths.

(2.) Our commercial relations with Great Britain, which are of paramount importance to us, will be seriously interfered with.

(3.) All our charts and chart-plates, which have been obtained at such an immense outlay, must be thrown aside, and all exchange of charts with England must at once cease.

(4.) A radical change must be made in the putting up of packages, which are now sold, ready packed, in pound or ounce, or yard or foot packages.

(5.) In manufacture, all our gauges, dies, lathes, screws, augers, chisels, machinery of every description, are made with the inch as the standard. All this must be changed, and at a cost of much money and confusion.

(6.) But it is in land measurements that the most dire confusion will manifest itself. We buy and sell land by the front foot in cities, by the acre in the country. All our deeds and mortgages must be overhauled, the measurement by chains, etc. rectified, and the contents, in the one case, obtained by dividing the number of acres by 2.47114+ (the hectare), and, in the other case, the frontage obtained by reducing our present measurements, in feet, to inches, and dividing by 39.37079+ (the metre). Instead of a lot with a frontage of sixty feet, there will be a frontage of 18.287669614 + metres; that "+" representing a column of figures extending, like Banquo's mirrored descendants, "to the crack o' doom," and furnishing ample ground for many a legal Shylock to hang a case upon. . . . .

The principal trouble I have had has been in the feeling of uncertainty when prescribing liquids as to what would be the bulk of the resulting mixture. The familiar "*q. s. ad* —" of the old method sufficed to make the mixture equal a certain bulk; but the new system, at least as used in France and Germany, has no such convenient device. Not only does the difference in specific gravity lead to inaccuracy, but the various solids that are added also affect the bulk to a greater or less degree; so that it is impossible to predict, with anything like the degree of accuracy desired, the amount of medicine the patient will get.

This inaccuracy may be but a mere *bagatelle* to the visionary and transcendental Bostonian, but to myself it has always been a source of very uncomfortable solicitude, and I judge that I am not alone in this, since our friend Dr. X. C. Scott, of Cleveland, who I am sorry was called home suddenly last evening, told me in conversation yesterday that after using the metric system for three years, while pursuing his studies in Europe, he was glad to return to a country where he could use the more reliable methods of the old system.

One patient has been already killed by this system, — grams of laudanum being dispensed when centigrams had been prescribed; and a prominent Broadway (New York) drug store put in four powders six *decigrams* of morphia instead of six *centigrams*, as written, — making each powder contain two and a half grains instead of one fourth of a grain. Fortunately, the doctor discovered the mistake.

Two years ago I wrote: "The adoption of the metric system will give us 'confusion worse confounded.'" Was I, or was I not, correct?

* * *

AMNIOTIC FLUID.

Mr. Editor, — Noticing a case reported in your number for August 21st of the absence of the amniotic fluid, given by Dr. Pierce, of Freeport, Me., and having within the last week met with a similar case, I will give you the facts. Mrs. L. A. W., mother of eight children, was taken with labor pains on the 20th inst. I saw her in a few hours after, when the head could be plainly felt through the os, but there was no indication of the "bag of waters."

Labor went on as usual, except that I thought the first stage unduly prolonged; the pains were very severe. The os became fully dilated, and forcing pains succeeded. The membranes did not rupture till the head was well down, when I tore them with my nail, and in a short time a fine, plump female child was born. There was no appearance of *any* amniotic fluid. I could not discover that the passages were any moister after the rupture of the membranes than before. I never met with a parallel case. The patient stated that her previous labors were just the same, and that her attending physicians had in several instances spoken of the absence of water. In this case the placenta was extensively adherent to the fundus of the uterus, and had to be removed by the hand.

HILL, N. H., *August* 25, 1879. D. E. WELLES, M. D.

FLUSHING OF SOIL-PIPES AND TRAPS.

MR. EDITOR, — Permit me to suggest through your pages that it is within the power of any householder to remedy, to a great extent, the evils attendant upon insufficient flushing of soil-pipes and traps, as described by Mr. Waring in his second article. If the pipes are slimy, a moderately strong solution of copperas or silicate of soda (both cheap materials) should be poured down them as a preliminary. Then raise all the water-closet valves and open all the faucets for the space of ten minutes. This plan practiced at regular intervals of two to five days, according to the season, will keep pipes and traps thoroughly washed out and free from objectionable deposits.

While it is difficult to provide for an adequate automatic flushing of pipes and traps, it is perfectly easy to secure it if a little intelligent care is exercised. It really requires no more thought or attention than the usual shutting off to guard against frost in winter.

Yours truly, C. F. CREHORE.

August 25, 1879.

CHANGES IN THE MEDICAL CORPS OF THE NAVY FOR THE WEEK ENDING SEPTEMBER 5, 1879.

September 1st. Assistant Surgeon William R. DuBose detached from the Wabash and ordered to the Naval Hospital, New York.

September 1st. Assistant Surgeon S. H. Dickson detached from the Naval Hospital, Norfolk, and ordered to the Naval Hospital, New York.

September 1st. Assistant Surgeon C. W. Deane detached from the Naval Hospital, Chelsea, and ordered to the receiving ship Wabash, Boston, Mass.

September 1st. Assistant Surgeon B. F. Rogers detached from the St. Mary's and waiting orders.

September 1st. Medical Inspector A. L. Gihon promoted to medical director from August 20, 1879.

September 1st. Passed Assistant Surgeon B. S. Mackie promoted to surgeon from August 20, 1879.

September 3d. Surgeon J. W. Coles detached from medical examining board and waiting orders.

September 3d. The naval medical board for the examination of candidates for admission and promotion dissolved.

September 3d. Assistant Surgeon E. H. Marsteller detached from the Mayflower and waiting orders.

September 3d. Assistant Surgeon J. E. Gardner detached from the Standish and waiting orders.

September 3d. Surgeon B. S. Mackie detached from the St. Louis and waiting orders.

September 5th. Surgeon M. L. Ruth detached from the Constellation and ordered to the Naval Academy.

September 5th. Passed Assistant Surgeon Robert Whiting detached from the Constellation and waiting orders.

September 5th. Passed Assistant Surgeon William A. Corwin detached from the Naval Academy and waiting orders.

REPORTED MORTALITY FOR THE WEEK ENDING AUGUST 30, 1879.

Cities.	Population estimated for July, 1879.	Reported Deaths in each.	Annual Death-Rate per 1000 during the Week.	Percentage of total Deaths from				
				The Principal "Zymotic" Diseases.	Diarrhœal Diseases.	Diphtheria and Croup.	Pneumonia.	Typhoid Fever.
New York	1,085,000	492	23.64	31.51	20.93	2.62	4.63	1.62
Philadelphia	901,380	314	18.16	21.66	15.92	1.28	2.23	2.23
Brooklyn	564,400	231	21.24	33.77	22.50	6.50	1.57	—
Chicago	—	220	—	43.63	18.18	10.46	1.81	6.37
St. Louis	—	125	—	28.80	18.40	8.20	0.80	2.40
Baltimore	365,000	137	19.57	36.50	20.44	2.92	2.19	2.19
Boston	360,000	136	19.69	40.44	28.78	5.15	5.15	2.94
Cincinnati	280,000	75	—	22.66	14.66	2.66	5.33	—
New Orleans	210,000	81	—	25.98	7.41	1.23	7.41	—
District of Columbia	160,000	54	17.40	25.92	12.96	—	7.40	5.55
Cleveland	175,000	66	19.67	37.88	21.23	9.09	—	3.03
Pittsburgh	—	68	—	48.53	14.70	20.60	1.47	4.41
Buffalo	—	—	—	—	—	—	—	—
Milwaukee	—	44	—	47.71	31.70	14.60	2.43	2.43
Providence	101,500	36	18.47	19.44	11.11	5.56	2.78	—
New Haven	60,000	14	12.17	28.57	7.14	7.14	21.42	7.14
Charleston	57,000	31	28.28	9.69	9.69	—	—	—
Nashville	27,000	9	17.38	11.11	11.11	—	—	—
Lowell	53,300	26	25.43	38.46	34.62	—	5.26	3.85
Worcester	52,500	19	18.87	26.32	26.32	—	—	—
Cambridge	50,000	14	14.60	35.71	35.71	—	—	—
Fall River	48,500	24	25.80	62.50	37.50	4.17	—	—
Lawrence	38,200	15	20.48	40.00	20.00	10.53	—	—
Lynn	34,000	11	16.87	18.18	9.09	6.67	6.67	—
Springfield	31,500	9	14.90	44.44	—	8.33	—	—
New Bedford	27,000	9	17.38	44.44	44.44	—	4.00	—
Salem	26,400	11	21.73	—	—	—	—	—
Somerville	23,350	9	20.10	55.55	33.33	28.57	—	—
Chelsea	20,800	8	20.06	25.00	—	12.50	—	—
Taunton	20,200	5	12.91	40.00	40.00	—	—	—
Holyoke	18,200	9	25.79	44.44	33.33	—	—	—
Gloucester	17,100	4	12.20	50.00	—	—	—	25.00
Newton	17,100	9	27.44	55.55	11.11	—	—	—
Haverhill	15,300	8	27.26	12.50	12.50	10.00	10.00	—
Newburyport	13,500	13	50.21	23.08	7.69	—	25.00	7.69
Pittsfield	12,650	10	41.22	—	—	—	—	—
Fitchburg	12,500	5	20.86	—	—	—	—	—
Milford	9,800	1	5.32	—	—	—	—	—

Two thousand three hundred and fifty-two deaths were reported, showing a decrease of 130 from the previous week : 759 from the principal "zymotic" diseases, 452 from diarrhœal diseases, 301 from consumption, 117 from diphtheria and croup, 65 from pneumonia, 52 from typhoid fever, 49 from scarlet fever, 35 from malarial fevers, 28 from bronchitis, 28 from whooping-cough, 12 from cerebro-spinal meningitis, five from measles, four from yellow fever, four from erysipelas, one from small-pox (New York). *Scarlet fever,* New York 10, Chicago and Baltimore eight, Fall River five, Cincinnati four, Boston three, Philadelphia, St. Louis, and Pittsburgh two, Brooklyn, Cleveland, Providence, Springfield, and Gloucester one. *Malarial fevers,* New Orleans 10, New York nine, Chicago six, Baltimore four, St. Louis three, District of Columbia two, Pittsburgh one. *Whooping-cough,* Brooklyn seven, New York five, Philadelphia four, Baltimore, Boston, District of Columbia, and Cleveland two, Chicago, Pittsburgh, Milwaukee, and New Haven one. *Cerebro-spinal meningitis,* Chicago four, New York three, Baltimore, New Orleans, Pittsburgh, Fall River, and Springfield one. *Measles,* New York three, Brooklyn and St. Louis one. *Yellow fever,* New Orleans three, Philadelphia quarantine one. *Erysipelas,* Brooklyn two, Pittsburgh and Newburyport one. There was a marked decline for the week in diarrhœal diseases, cerebro-spinal meningitis, and measles, and a great increase in diphtheria and croup continued. The other diseases remained without noteworthy change. In the twenty cities and large towns of Massachusetts, with an estimated population of 867,100, the only change was a decrease in diarrhœal diseases.

The meteorological record for the week in Boston was as follows: —

Date.	Barometer.	Thermometer.			Relative Humidity.				Direction of Wind.			Velocity of Wind.			State of Weather.[1]			Rainfall.	
	Mean.	Mean.	Maximum.	Minimum.	7 A. M.	2 P. M.	9 P. M.	Mean.	7 A. M.	2 P. M.	9 P. M.	7 A. M.	2 P. M.	9 P. M.	7 A. M.	2 P. M.	9 P. M.	Duration.	Amount in Inches.
Aug. 24	29.715	74	85	65	71	59	85	72	Calm	SW	W	0	10	4	F	F	F	—	.07
" 25	29.813	62	75	60	81	68	88	79	Calm	SE	SE	0	8	2	F	O	O	—	.06
" 26	29.971	58	61	55	94	76	87	86	NE	NE	NE	22	22	12	O	F	F	—	.09
" 27	30.054	59	69	55	85	85	94	88	NE	NE	NE	13	12	6	O	O	F	—	—
" 28	30.097	58	70	53	87	77	87	84	N	E	NE	8	12	2	C	C	C	—	—
" 29	29.952	67	80	52	75	57	89	74	W	E	SW	5	2	5	C	F	F	—	.11
" 30	29.973	64	74	58	77	78	63	73	N	SE	W	10	8	10	C	F	C	—	—
Week.	29.939	63	85	52				79	NE			1493 miles						13.5	.33

[1] O., cloudy; C., clear; F., fair; G., fog; H., hazy; S., smoky; R., rain; T., threatening.

Yellow fever continues unabated in Memphis, 163 cases and 53 deaths having been reported for the week ending September 6th, in addition to the 848 cases and 228 deaths previously returned. Five cases and a death were reported in New Orleans.

For the week ending August 9th, in 149 German cities and towns, with an estimated population of 7,577,100, the death-rate was 28.4 against 25.8 of the previous week. Four thousand one hundred and forty deaths were reported: diarrhœal diseases 829, consumption 433, acute diseases of the respiratory organs 258, diphtheria 84, whooping-cough 61, scarlet fever 54, typhoid fever 48, measles 40, puerperal fever 16, small-pox two. The death-rates ranged from 17.9 in Crefeld to 41.0 in Breslau; Dantzic 26.7; Munich 30.7; Dresden 28.5; Berlin 33.4; Leipsic 33.4; Hamburg 24.4; Hanover 19.4; Cologne 32.3. In the same week, Vienna 26.8; Paris 23.6; Brussels, 21.2.

For the week ending August 16th, in the 20 English cities and towns, with an estimated population of 7,383,999, the death-rate was 18.7 against 17.4 of the previous week. Two thousand six hundred and forty-seven deaths were reported: diarrhœa 210, lung diseases 181, scarlet fever 94, measles 80, whooping-cough 76, fever 45, diphtheria nine, small-pox four (London). The death-rates ranged from 8.4 in Plymouth to 21.8 in Manchester; London 19.4; Bristol 18.6; Birmingham 16.4; Liverpool 21.6. For the same week, Edinburgh 16, Glasgow 15, Dublin 28 (two deaths from small-pox), Geneva 11.1, Zurich 21.4.

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ERRATUM. — In the title of the mortality report in our last issue, page 352, for August 16th read August 23d.

RHODE ISLAND MEDICAL SOCIETY. — The quarterly meeting of the society will be held in Lyceum Hall, 62 Westminster Street, Providence, Wednesday, September 17th, at ten A. M. Censors' meeting at 9.30 A. M. Papers will be presented by Drs. G. D. Hersey, A. G. Browning, and J. E. Tobey. Applicants for membership will send their applications and diplomas to the office of the secretary, 310 Benefit Street, Providence, previous to the day of meeting. Blank applications may be procured of the secretary.

W. E. ANTHONY, M. D., *Secretary.*

BOOKS AND PAMPHLETS RECEIVED. — Analysis of the Urine, with Special Reference to the Diseases of the Genito-Urinary Organs. By K. B. Hoffmann, Professor in the University of Gratz, and R. Ultzmann, Docent in the University of Vienna. Translated by T. Barton Brown, A. M., M. D., Resident Physician Maryland University Hospital, and H. Holbrook Curtis, Ph. B. New York: D. Appleton & Co. 1879.

How Infant Mortality may be Lessened. Suggestions by the State Board of Health of Wisconsin.

American Health Primers. Summer and its Diseases. By James C. Wilson, M. D., etc., etc. Philadelphia: Lindsay and Blakiston. 1879. (From A. Williams & Co.)

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LECTURES.

CLINICAL LECTURES ON THE PHYSIOLOGICAL PATHOLOGY OF SYPHILIS.[1]

DELIVERED AT THE COLLEGE OF PHYSICIANS AND SURGEONS, NEW YORK, SESSION OF 1878-79.

BY FESSENDEN N. OTIS, M. D.,
Clinical Professor of Genito-Urinary Diseases, etc.

III. PERIOD OF GENERAL INFECTION AND SUBSEQUENT LOCALIZED CELL ACCUMULATION.

Gentlemen, — In the previous lectures it has been claimed that the one great characteristic, in point of fact the sole evidence we have, of syphilitic infection, in its early stages, consists in an increased proliferation and localized accumulation of germinal or white blood cells. Thus it was shown that the induration of the initial lesion was produced, and also, by consequent interference with the nutrition of the part, the characteristic forms of the infecting chancre or initial lesion of syphilis resulted. Entire absence of any sign of syphilis at any other point, and a gradual advance of the abnormal cell accumulation through the lymph paths connecting with the point of inoculation, appeared to warrant the conclusion that the disease was progressing through the lymph channels alone. Its course was clearly recognized from its initiation, at the point of inoculation, to the entrance into and enlargement of the lymphatic glands in connection with it.

The so-called *period of incubation*, or interval between the date of inoculation and the appearance of the characteristic induration, was readily accounted for by the gradual accumulation of cells at the point of inoculation, antecedent to effecting an entrance into a lymphatic vessel. The period of rest which was said to occur between the appearance of the induration and any constitutional manifestation of syphilis was explained by referring it to the slow progress of the infected cells through the labyrinthine channels of the lymph glands. Bäumler, latest of the German authorities on syphilis, says of this matter, "Several weeks always elapse from the first appearance of the local affection before the point is reached where general symptoms break out; and this circumstance speaks also in favor of the theory that the poison advances *by way of the lymphatics*, and the slowness of this advance finds its explanation in the hindrance offered to the passage of the virus by the lymphatic glands."[1] The interval now accepted by all authorities as occurring between the date of inoculation and the appearance of the characteristic initial lesion was fixed at an average of twenty-one days; the interval between the occurrence of the induration and the earliest evidences of constitutional syphilis at an average of forty days. Having shown, as I believed, that neither of these intervals was in any sense an *incubation*, but the consequence of interference with the progress of the diseased cells through natural anatomical and physiological barriers, I discarded the term incubation, and instead of the conventional title of *primary syphilis*, usually applied to the period which intervenes between inoculation and recognized constitutional infection, I designated it *the initiatory period of syphilis.*

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[1] Reported by P. Brynberg Porter, M. D.

This initiatory period of syphilis may be said to terminate when the diseased cells or germs have passed through the lymph vessels and glands intervening between the point of inoculation and the *receptaculum chyli.* On entering this reservoir these "carriers of contagium" must of necessity be swept along in the lymph current, through the subclavian veins, into the general blood current, and with it find their way to the remotest ramifications of the blood vascular system. "These cells," says Beisiadecki, "formed in the lymphatic system, can easily enter the lymph current and the blood, and become the carriers of the contagium." Now, in the natural history of syphilis, the earliest manifestation of constitutional infection or secondary syphilis, as it is usually termed, is, according to observation and authority, a peculiar and general eruption of rose-colored blotches on the skin at about the sixth week after the occurrence of the initial lesion, and known as the "syphilitic roseola." Although not always recognized, it is conceded by our best observers that it is always present in greater or less degree, in some instances extremely transient, lasting perhaps only a few hours, while in other cases it may last for many weeks. Its appearance in point of time will be found to coincide with the alleged period of entrance of the vitiated cells or syphilitic disease germs into the general circulation.

I shall present for your observation and study to-day several cases of this earliest and most common of all the manifestations of syphilis. This young man, for instance (whom you may indicate in your notebooks as Case V.), is by occupation a waiter, age twenty-four years. He states that he has often suffered from sores on his penis, following connection, but that he had always been able to cure them by applications of caustic in a short time. About three months ago he had a connection, followed in three or four days by several little sores on his penis, which he treated in the usual way, and with his usual success, and to all appearance continued free from trouble until about a month after, when, without other connection, his penis again became sore. Notwithstanding the applications of caustic, it not only refused to heal, but gradually grew so much worse that he has applied at our clinic to-day for relief. Some time since it was promised that in each case presenting, where the initial lesion of syphilis was found to vary in any characteristic way from those already described, it would be made the subject of especial consideration. In the present instance we find occasion to raise a question as to the character of the lesion on the penis. It is certain that we have a condition here markedly different from any of the preceding cases of syphilitic initial lesion. Thus, instead of an unbroken papule, a simple erosion, an insensitive, indurated mass, free from any signs of suppurative action, we find at base of the glans, superiorly, an angry-looking sore, about the size of a dime. The inflammation which surrounds it is also seen in the congested and swollen preputial tissues. The excavation, while somewhat superficial, presents an abrupt and irregular border and a yellowish, sloughy-looking floor, secreting pus freely. Contiguous to it, in the fossæ glandis, you may observe several little ulcers, and also two or three small, unbroken pustules. The gross appearance is such as we might expect to find in an inflamed venereal ulcer, entirely local in its nature, and usually termed *chancroid.* Now the chancroid, as I have previously told you, is the result of a process of destruction, while the initial lesion of syphilis is the result of excessive growth of germinal or tissue-building material. Whenever the initial lesion of syphilis occurs as an open lesion it is the result, not of a true ulceration, but of a *necrobiosis*, a mechanical interference with the processes of nutrition, and its characteristic secretion is epithelial and serous, and not purulent. On the contrary, the secretion of the chancroid is *always* purulent. I have also told you that the base of the *chancroid* was supple, quite free from the induration characteristic of the initial lesion of syphilis. In this case we find the salient features of the chancroid, and yet by farther examination we ascertain that it is situated upon a *distinctly indurated base*, although not so much so as in that presented at our last lecture as typical of the chancre or the initial lesion of syphilis.

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[1] Ziemssen's Encyclopædia, vol. iii., Am. ed., page 124, 1875.

It therefore would appear that the induration, being thus apparently associated with the chancroid, was not especially significant. But in this connection you will also recall a fact, repeatedly referred to in our examinations of chancroid, that a very distinct induration may be produced by applications of caustic, such as have been made use of in this case, as well as by other modes of irritation. This, as you will remember, was alluded to as a temporary condition, but one which, for the time, might prove a source of embarrassment in arriving at a diagnosis, and that we might be obliged to wait for the result of treatment, in order to come to a correct decision, unless other evidences or manifestations of disease were present. In looking for such, our attention is arrested by the presence of the small ulcers and pustules associated with the principal point of disease. The initial lesion of syphilis is known to be usually solitary. This patient distinctly states that he has had no connection within the last three months, and that the small ulcers have appeared within the last week and the pustules within the last twenty-four hours.

Now, it is an important fact in the natural history of the chancre, or initial lesion of syphilis, that given a characteristic, indurated, non-suppurating, open initial lesion, a typical infecting chancre, with smooth, sloping edge and granular floor, secreting a serous fluid of a perfectly transparent and unirritating quality, and subject it to violent or prolonged irritation by caustics, or friction of clothes, or otherwise, sufficiently to produce inflammation, a destructive action will be set up in it, which, engrafting upon it a true ulcerative process, will entirely alter its appearance and the character of its secretion, changing its physical aspect to that of the chancroid, and its bland secretion to a purulent fluid of distinctly contagious and destructive character.

With the knowledge of this fact we may now see how this lesion, originally solitary, may have become multiple by recent auto-inoculation of its secretion upon the mucous surface in its vicinity, and that while thus possessing in a general way the characteristic features of chancroid, the lesion before us may yet prove to be an initial lesion of syphilis, one of the variety which we term *the inflamed chancre.*

I may here, in passing, call your attention to the fact, now well substantiated, that all pus, the product of inflammatory action, acquires to a greater or less degree the contagious and necrotic property, and hence that this peculiarity is not confined to the inflammation of chancre. This point will be more fully considered as we come to treat upon the subject of chancroid.

We must now, however, in this case, seek for further evidences as to the true character of the sore before coming to a final decision; for if it be the initial lesion of syphilis, now at the end of the third month from the date of inoculation, further evidences should not be wanting.

We will first endeavor to detect the lymphatic induration, the knotted cord, which on a previous occasion was found extending from the initial lesion to and into the region of the inguinal glands. The integument of the penis is here so swollen, by the intercurrent inflammatory action, that a satisfactory examination on this point is impracticable; but we do find distinct enlargement of the inguinal glands, free from tenderness, hard to the touch, and movable under the integument.

The patient states that he has occasionally felt a little stiffness in this region after much walking, but has experienced no sensation of pain. Recent painless enlargement of the lymphatic glands, taken in connection with the history and condition of this patient, render it almost certain that his trouble is syphilitic; and yet his general health, he claims, is excellent, and his appearance fails to indicate any constitutional disturbance. His condition is much like that of Case III. at our last clinique where, you will remember, casual reference was made to some reddish spots upon the body of the patient. I did not mention their significance at that time, but it was the eruption which then made the diagnosis of syphilis absolutely certain. On removal of this patient's clothes, you may now observe a similar eruption, — dull, rose-colored spots, thickly scattered over his back, and to a less degree and somewhat fainter on his breast and arms. I find, also, a few sprinkled over his palms. This exanthem, associated with his history, with the sore on his penis, and his enlarged and painless inguinal glands, enables us to state confidently that the local lesion in this patient is the *inflamed chancre*, — the initial lesion of syphilis modified in appearance and local character by superimposed inflammatory action, — and that this eruption is the roseola of syphilis. In its general appearance this exanthem is, as you may see, not unlike a slight eruption of measles. Pressure with the finger in the syphilitic roseola causes the color to disappear completely when the eruption is recent, but when it has existed for some weeks a brownish or copper-colored stain is left. In this case it leaves a slight coppery stain, which is an evidence, although the patient has been entirely unconscious of the fact, that it is a syphilitic roseola, and has been present for some time. The longer the eruption remains the more likely it is to leave its characteristic trace, namely, a coppery stain, unaffected by pressure. The color of this stain here, as well as in other syphilitic eruptions, is usually considered valuable as a diagnostic mark of syphilis. With this exception, however, it is not materially different from an idiopathic roseola. Like the latter, it appears suddenly; often during or following any exercise which gives a violent impetus to the circulation of the blood, such as rowing, dancing, or running.

Pain or other premonitory symptom is not necessarily associated with it. Sometimes it is slight, consisting only of a few pale spots, while again it is profuse and highly colored, and occasionally slightly elevated. But it never develops into any other form of lesion. Beyond a reddish blotch, it is never more than a copper-colored stain, and even this stain, the only really salient point of difference between simple roseola and that which is thus seen to be associated with the advent of constitutional syphilis, will be shown to result from simple causes. It is true that this eruption is popularly accepted as syphilitic, in the sense that it is caused by the local presence of syphilitic material, and is to be gotten rid of through the same means by which the specific cell accumulations (forming papules in the skin and mucous membranes) at a later stage of the disease are eliminated. I believe, however, that this can be shown to be an error, and that this roseola, like all the other roseolas, is the result of a purely functional disturbance. Bäumler says of it, "In every syphilitic efflorescence there is a circumscribed dilatation of blood-vessels, together with a certain amount of exudation of white blood cells into the sheaths of the vessels merely, and into the surrounding tissue. The greater the degree of stasis the more abundant will the exudation of red corpuscles be; and *it is the alteration of the coloring matter in these red globules which imparts to the color of the syphilides, after they have remained for some time, their yellowish or brownish shades.* These shades are more distinct in proportion as the congestion of the vessels thereby occasioned recedes, and they are more pronounced, the longer the stasis has continued. In the same way, any efflorescence, or its immediate vicinity, or scars following ulcers on the lower extremities, *not due to syphilis*, may assume this color. Long-continued dilatation of capillaries and stasis of the blood are all that is necessary to produce pigmentation."

(*To be concluded.*)

LARGE CYSTIC TUMOR OF KIDNEY.

BY A. M. TUPPER, M. D., ROCKPORT.

M. T., male twin, aged nineteen months. Shortly after birth three nævi appeared, two in the scalp and one about a quarter of an inch from the external angle of the right eye. As they were growing fast, they were first cauterized with nitric acid, and afterwards the one at the angle of the eye, the largest, was ligatured. These operations being unsuccessful, the child was sent to the Massachusetts General Hospital for the purpose of having the galvano-cautery applied, which was done, and the disease cured. Last September the mother, being away with the child on a visit, discovered a tumor, about the size of a hen's egg, midway between the ribs and the crest of the ilium, on the right side. A physician who was called in for some other ailment examined it, made no positive diagnosis, but, thinking it might be a fæcal accumulation, treated it as such with no effect. On the way home the child was taken to the hospital for the purpose of exhibiting the effect of the cautery, and partly on account of the tumor. She was told that it might be a cold abscess, and if it grew much to return for further examination.

I first saw it the last of October. The abdomen was then considerably enlarged, the enlargement being greatest on the right side. The growth steadily increased, and about the middle of November I introduced the needle of a hypodermic syringe into the most prominent part of the swelling, and drew off about a drachm of clear serum. Shortly after this the patient was again taken to the hospital, where the tumor was aspirated; and as only a very small quantity of fluid could be withdrawn, it was thought to be a collection of cysts, containing nothing but serum, but its origin was not determined. The microscope threw no light on the subject.

The disease steadily advanced up to the time of death, February 24th. The child's health did not suffer much until about six weeks before its decease, which was hastened by a mild attack of bronchitis. The parents did not object to an autopsy, which was made by myself, in presence of Drs. Manning and Sanborn, of this town, and the father, the details of which are given below.

Autopsy, twenty-two hours after death. As the body lay on the table it presented a remarkable appearance, the enormously enlarged abdomen contrasting strongly with the emaciated limbs. Measurement round largest part of abdomen, twenty-six inches. An incision from sternum to pubes came at once upon the tumor, which filled the whole abdomen and part of the thorax. Part of the large, and a few coils of the small, intestine were all that could be seen of the abdominal organs; they were lying in the left hypochondrium. Tumor firmly adherent throughout to the peritonæum and large and small intestines. After considerable difficulty in separating the adhesions, it was lifted out and found to be an enormous collection of cysts enveloped in a firm fibrous capsule, originating in the right kidney, being part and parcel of the kidney, blending with the cortical substance, so that it was difficult to define the line between the cysts and the cortical substance; in fact, the organ was converted into an immense number of cysts of all sizes, and weighed *seven and three quarter pounds.* I did not take the dimensions of the tumor, but it was certainly twice as large as an adult head. The walls of the cysts were of a dense fibrous substance, creaking under the knife almost like cartilage. It contained nothing but a clear, watery serum. No microscopic examination was made, and, I regret to say, no chemical analysis of the contents. The left kidney was healthy. Bladder full. All the other abdominal organs healthy. The lungs were so much compressed that it seemed almost incredible that the child lived as long as it did.

I can find no mention in any work that I have access to of anything of the same nature that approaches the size and weight of this tumor, and therefore present it to your many readers as a case of interest, and worthy of being put on record.

ANATOMICAL EVIDENCES OF ABORTION.[1]

BY MEDICAL EXAMINER C. C. TOWER, M. D.

At the autopsy of a woman supposed to have come to her death in consequence of a recent abortion, at a period from the third to the sixth month of pregnancy, an examination of the corpus luteum, if discovered, should be made in reference to the following anatomical and diagnostic signs: (1) location; (2) size; (3) texture; (4) glandular wall; (5) clot; (6) enucleation.

(1.) The location in the ovary should be superficial, as indicated by a prominence on the surface of that organ, and by the existence of a minute opening or cicatrix which marks the point of rupture of the Graafian follicle whence the corpus luteum originated. If the structure is deep seated, and unconnected with a depression or scar on the ovarian surface, it is not to be considered as an evidence of pregnancy, but should be regarded as the result of gelatinous, fibrinous, or saccular degeneration of an unruptured Graafian follicle, — a so-called "false corpus luteum."

(2.) Unless defective in development, on account of local or general deficiency of organization or vigor, or on account of retrograde changes which took place between the events of abortion and death, we should expect the corpus luteum at this middle period of pregnancy to measure in its length from ten to twenty-five millimetres, in its weight from five hundred to fifteen hundred milligrammes, and in its volume from one half to one cubic centimetre. Normally retrograde corpora lutea of menstruation usually fall short of these measurements.

(3.) The texture of the corpus luteum of pregnancy is usually quite firm, sometimes almost cartilaginous in consistency, especially the clot, while that of corpora lutea unconnected with pregnancy is soft or only moderately firm, and, after the first month, even friable.

(4.) The wall of the corpus luteum when followed by impregnation is of a more distinctly bright orange-yellow color, thicker, and more deeply convoluted than when conception has not taken place. The yellow color which then obtains is often described as rosy yellow, light yellow, yellowish-white, an indefinite yellow hue, and the convolutions are less deep and thick according as the occurrence of menstruation has been recent.

(5.) The clot of the corpus luteum is one of its most distinctive features. During its development in pregnancy it becomes more and more discolored and firm in texture, and towards the end of the term puckered and scar-like. In about one third of the cases it is found to contain a central cavity devoid of lining membrane. This characteristic may be regarded as almost certainly diagnostic of recent pregnancy. In the non-pregnant state, however, the color, which during the first month is red, changes to greenish, brownish, or whitish, only when the retrograde process has become well established, — when its size has begun to diminish and its consistence to soften.

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[1] Concluded from page 369.

(6.) Enucleation is one of the properties which pertain to corpora lutea. Not only in the well-developed structure can the clot be removed from its enveloping wall, but also the whole body can be readily separated from the stroma of the ovary by a sort of natural cleavage. This characteristic of the corpus luteum belongs alike to that of pregnancy and that of menstruation during the developmental periods. This difference, however, obtains: that when the latter has undergone an early stage of retrocession, or become obsolete, its separation of parts or its entire separation from the ovary is difficult, if not impossible, without rupture; whereas the corpus luteum of pregnancy can be at all times enucleated from its bed in the ovary, and, as a rule, the clot can be removed from its capsular integument.

In regard to the medico-legal value of a well-marked corpus luteum of pregnancy as an evidence of abortion, it seems to me there can be no doubt. As much weight should be attached to its existence as to that of any other single sign, unless, perhaps, the mark of the utero-placental union. It sometimes, however, happens, as in the case already referred to, of Dr. Chenoweth, that on account of instrumental violence at the hands of an abortionist, followed by inflammatory softening of the uterine wall at the seat of injury, complete obliteration of the placental site occurs, thus destroying any evidence to be derived from this source. In this case when the uterus "was first held up there appeared to be three ragged rents on the front part close together, looking like a torn carpet, with the shreds reaching across the rents." "After having been slightly touched with a sponge the rents in the uterus disappeared, leaving a large excavation." "I do not doubt," he says, "that the placenta occupied the site of the rents." In other instances, as when due to the lapse of a considerable interval of time between the abortion and death, all traces of the seat of this organ have been removed by absorption or exfoliation.

Although some writers on medical jurisprudence are inclined to attach small importance to the existence of a corpus luteum as a proof of recent abortion, yet I think I may say the latest and best informed on this subject generally regard it as of very considerable value. Evidently the weight given to this sign depends very much upon the care with which the examining physician conducts his examination, and upon his ability to interpret correctly the appearances which he discovers. There is reason to believe that most of the reported cases of so-called "true corpora lutea" in virgins, and their absence in women after delivery, are attributable either to a want of discrimination between the yellow body when dependent upon ovulation alone and that dependent upon ovulation followed by conception, or to an inability to recognize that structure when imperfectly developed from any cause, or when deteriorated by changes which have taken place in it after abortion occurred. Attention to the points detailed above, it is believed, will seldom mislead the careful observer. It is to be hoped that medical examiners will give this subject careful attention, and report their results to the society, in order that a more thorough knowledge of all the important phases and appearances of this organism may be more thoroughly understood.

The following conclusions arrived at by Ogston tally well with what I have derived from other sources: —

(1.) "That a small, imperfectly developed corpus luteum affords no proof of impregnation having taken place.

(2.) "That in proportion as the corpus luteum approaches its full size and development, so does the proof of impregnation followed by a somewhat advanced pregnancy approach to anything like certainty.

(3.) "That the absence of a corpus luteum from the ovary would not be sufficient to negative the possibility at least of impregnation having taken place.

(4.) "That the differences in which the distinction between spurious and true corpora lutea is based do not refer to separate bodies so much as to different states of the same body."

The following case, copied from Professor Dalton's report, already borrowed from, illustrates so well many points which have been described that I make no apology for its introduction here: —

"Case XXIII. A colored woman, twenty-five years of age, rather below the medium height, but strong and well developed, died in New York, April 7, 1877. She had had an abortion, without medical attendance, nine days before, and attempted to conceal the fact until she became ill, several days afterward, and was seen by a physician. She reported to him that she had been not more than two months advanced in pregnancy. From her appearance, as observed by her friends, the pregnancy might have been as early as this, but could not be as late as six months. From the condition of the uterus, as seen at the autopsy, it should probably be reckoned at three months. Death resulted from general peritonitis.

"The uterus was enlarged to more than five times its natural size; weighing, when stripped of all accessory parts, two hundred and seventy-four grammes, its walls being thickened in proportion. The mucous membrane of the cervix remained entire. That of the body was wanting throughout; and at the upper part of the posterior uterine wall, the former attachment of the placenta was indicated by a ragged, brownish prominence, forty to fifty millimetres in diameter and three to five millimetres in thickness.

"The situation of the corpus luteum, in the right ovary, was distinguishable externally by a roundish, superficial cicatrix-like spot surrounded by an indistinct yellowish zone. The corpus luteum, immediately beneath, was fifteen millimetres wide, ten millimetres deep, and five millimetres thick. Its outer wall was of a clear, orange-yellow color, quite thin in its superficial portions, one millimetre thick elsewhere, but often increased by its foldings to a thickness of two millimetres. The central clot was of firm consistency, uniformly decolorized, and white for the greater part of its extent. Immediately beneath the superficial cicatrix it presented some dark bloody discoloration, apparently due to the inflammatory congestion of the ovarian integument, which was strongly marked. In the centre of the fibrinous coagulum was an oval excavation of flattened form, without any separate lining membrane. The whole corpus luteum was easily enucleated. Its volume was 0.9 cubic centimetre and its weight 1015 milligrammes.

"The left ovary, which was smaller than the right, contained nothing unusual. In each organ there were a number of Graafian follicles, from one to three millimetres in diameter, beneath the albuginea. There were none of larger size, and none prominent on the surface."

Although it would be in all fatal cases extremely desirable, and in most of such cases quite possible, to decide upon the occurrence of recent abortion by strictly post-mortem appearances, yet, fortunately, medical examiners are seldom compelled to rely entirely upon such proof. They are required by law to make "personal inquiry into the cause and manner of the death." It rarely happens that circumstantial evidence, or that obtained from a history of the case as given by trustworthy parties acquainted with the woman when living, or that derived from the general reputation of the woman, is not available for medico-legal purposes. It is obvious that in case of death following abortion, an opinion based upon medical examination should not be dependent upon any single sign, but rather upon the coexistence of several of them. While a distinct placental mark existing in a uterus considerably enlarged might in itself be sufficient indication to satisfy the examiner of the fact of recent delivery, yet if to this testimony could be superadded that arising from the existence of a well-developed corpus luteum, no further proof, it seems to me, should be required to satisfy any legal tribunal.

It only remains to allude to the evidences of abortion at a remote period. This can seldom be diagnosticated by physical signs alone. After delivery at the full time the normal process of involution is completed in about one month. Although, as we have seen, the uterus under these circumstances does not wholly return to its original condition, and can be recognized as having been pregnant, yet after an abortion in the early or middle periods the differences in this respect would be hardly perceptible. If death followed criminal abortion after a month's time or more, in consequence of inflammation which was thereby set up, this "inflammation might or might not be attributed to this source." [1] When peritonitis is the result of violence it is, according to the authority of Woodman and Tidy, "generally more localized than when it is spontaneous in puerperal cases." The forms of inflammation which are most likely to ensue are metritis, phlebitis, pelvic peritonitis, and pelvic cellulitis. The original lesion is generally endometritis, which probably results in many cases from some injury inflicted upon the womb by the abortionist, or from want of proper care after the abortion occurred. "We have reasons for believing," says Fordyce Barker, "that puerperal metritis is frequently the primary lesion in many cases of general or local peritonitis, and in many of the suppurative inflammations of the other pelvic tissues."

The following case, which came under my observation ten years since, is an instance in point: E. B., aged twenty, unmarried, underwent two "operations" at the hands of an abortionist. No pain attended the first attempt, which was a failure. At the second, about a week after the first, she was "hurt dreadfully," as she subsequently stated. Immediately before and after each operation she walked a distance of two or three miles. Expulsion shortly followed the second manipulation. No physician was in attendance. She was said to have suffered severely, but apparently made a good recovery. At the end of a month she was removed to the residence of a near relative, some three miles distant, being conveyed in a carriage. From this time up to that of her death she underwent two transportations from place to place during cold winter weather, and is further believed to have suffered many hardships from neglect and abuse. It is known that for more than two months before the fatal event occurred there was a purulent discharge from the rectum, with emaciation, hectic, and general prostration. Death occurred four months after the abortion.

At the autopsy there was found in Douglas's pouch a purulent cavity four or five centimetres in diameter, with rigid walls formed by adhesions of the pelvic peritoneal tissues, and connected with the rectum by a fistulous opening some seven millimetres in diameter. The uterus was healthy to appearance, and being submitted to Professor J. B. S. Jackson, he could detect no positive trace of primary lesion, although there was an appearance which might have been the result of a puncture. No evidence of disease was found in other organs.

Before death the young woman made a dying statement, which was duly sworn to. The abortionist, who was a woman, was prosecuted, tried, convicted, and sentenced to eighteen months imprisonment in the house of correction. After serving seven months and twenty-four days of her sentence she was pardoned by the governor.

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[1] Ogston.

RECENT PROGRESS IN THERAPEUTICS.

BY ROBERT AMORY, M. D.

Third Report on the Action of Anæsthesia to the Scientific Grants Committee of the British Medical Association.[1] — This committee have been experimenting in regard to action of chloroform on animals, and also upon the properties of other anæsthetic agents, and have tested their results by kymographic tracings of the respiratory movements and arterial blood pressure. Ethidene dichloride ($C\ H_4Cl$, an isomeride of ethene dichloride, or Dutch liquid, a product from aldehyde) was administered to animals, with the report that dogs will live for a lengthened period in a state of complete anæsthesia during inhalation of this agent, whilst they will die in a short time when chloroform is used. Twenty patients were operated upon during anæsthesia produced by inhalation of this new anæsthetic. The agent was administered on a cloth with the allowance of a free supply of atmospheric air, and it took from seven to ten minutes to induce perfect anæsthesia, and its continued respiration seemed unattended with danger.

During this investigation the attention of the experimenters was directed, first, to the effects on the gases of the blood; second, to effects on the expired air; third, on the nervous phenomena, especially that of the exercise of the intellectual faculty. We copy the summary of results: —

"(1.) Both chloroform and ethidene administered to animals have a decided effect in reducing the blood pressure, while ether has no appreciable effect of this kind.

"(2.) Chloroform reduces the pressure much more rapidly and to a greater extent than ethidene."

"(3.) Chloroform has sometimes an unexpected and apparently capricious effect on the heart's action, the pressure being reduced with great rapidity almost to *nil*, while the pulsations are greatly retarded, or even stopped. The occurrence of these sudden and unlooked-for effects on the heart's action seems to be a source of serious danger, all the more that in two instances they occurred more than a minute after chloroform had ceased to be administered, and after recovery of the blood pressure.

"(4.) Ethidene reduces the blood pressure by regular gradations, and not, so far as observed, by sudden and unexpected depressions.

"(5.) Chloroform may cause death in dogs by primarily paralyzing either the heart or the respiration. The variations in this respect seem to depend to some extent on individual peculiarities of the animals; in some the cardiac centres are more readily affected, in others the respiratory. But peculiarities in the condition of the same animal very probably have some effect in determining the vulnerability of these two centres respectively, and they may fail simultaneously.

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[1] British Medical Journal, June 21, 1879.

"(6.) In most cases respiration stops before the heart's action, but there was one instance in which respiration continued when the heart had stopped, and only failed a considerable number of seconds after the heart had resumed.

"(7.) The use of artificial respiration was very effective in restoring animals in danger of dying from the influence of chloroform. In one instance its prolonged use produced recovery, even when the heart had ceased beating for a considerable time.

"(8.) Under the use of ethidene there was on no single occasion an absolute cessation either of the heart's action or of respiration, although they were sometimes very much reduced. It can therefore be said that, though not free from danger on the side of the heart and respiration, this agent is in a very high degree safer than chloroform.

"(9.) These results confirm and amplify those stated in a previous report, to the effect that ethidene does not compromise the heart as does chloroform. By the method of experimentation then employed, the effect on the blood pressure could not be determined, and altogether the results here obtained are more exact and unequivocal. Dr. Snow [1] first employed ethidene, afterwards, in 1870, Liebreich and Langenbeck in Berlin.[2] Sauer [3] reports one case of death in a patient with organic disease of heart. In 1872 Steffen [4] recorded twenty cases in which he used it."

Microscopical Examination of Triturated Metallic and other Hard Substances. — Dr. Wesselhœft [5] has very honestly reported his results of microscopical research upon this subject, and as these experiments seem to have entailed much labor they are entitled to a wide publicity. After describing the method which enabled him to recognize the minute fragments, he says that in specimens from the first centesimal trituration the largest particles of wood charcoal measured one fortieth millimetre, and the smallest one twelve hundredth millimetre; from its second centesimal trituration the largest particle of wood charcoal measured one three hundredth millimetre, but there were none smaller than one twelve hundredth; from its third centesimal trituration a large number of specimens were examined before a single carbon particle could be found, and then one or two only were recognized, which measured one six hundredth millimetre and one two thousandth millimetre. Dr. Wesselhœft then triturated one ounce of wood charcoal (without the addition of sugar of milk) for forty-five minutes; examination of specimens from this trituration showed a variation in the measurements of its charcoal particles from one hundred and fiftieth millimetre to one two thousandth millimetre, and would consequently seem to prove that the admixture of sugar of milk before trituration does not assist in comminuting the fragments to a smaller size. This supposition is still more strikingly shown in the next of his reported experiments, which consisted in triturating an equal quantity of charcoal and sugar of milk for thirty hours; in this case the variation in the size of the charcoal particles was from one twenty-sixth millimetre to one seven hundredth millimetre, being therefore only half that of the trituration without the sugar of milk; and yet it is true that this may have been caused by the longer process of trituration.

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[1] On Chloroform, published in 1858.

[2] Berlin. klin. Wochenschrift, Nos. 31 and 32, 1870, page 401.

[3] Deutsch Klinik, No. 44, page 398, and in 1872, page 358.

[4] Pharm. Centralblatt, vol. xiv., page 140.

[5] Dr. C. Wesselhœft, of Boston. Sammlung wissenschaft, Abhandlung aus d. Geb. d. Homœopathie, i., No. 3, Leipzig, 1878, and New Remedies, March, 1879.

Triturations with gold-leaf of the third centesimal showed that the smallest gold particles were one fiftieth millimetre, whereas a special mixture of one part of gold-leaf to four parts of milk sugar was triturated, and showed that the largest particle of gold-leaf measured one twenty-fifth millimetre, and the smallest one four hundredth millimetre. Five further triturations were prepared, but the measurements were the same as above mentioned.

Other experiments with precipitated gold, iron, silica, copper, and lead were followed with similar results, it being also remarked that the precipitated metals were capable of more minute subdivision, and that the limit of divisibility was reached in the first trituration. The trituration of mercury with milk sugar was found to contain comparatively large globules of mercury, no matter how long the trituration was continued, and on making a solution of such a trituration the metal united in larger drops. An admixture of Canada balsam and mercury, intimately stirred and mixed, subdivided the metallic particles into minute globules, varying in diameter from one three thousandth to one four thousandth millimetre.

Dr. Wesselhœft makes the statement that metallic and other hard insoluble substances cannot be subdivided by continued trituration beyond a certain limit, and that if these bodies are originally in a state of fine powder, rubbing with milk sugar does not further subdivide them. In most other cases the subdivision of particles ceases after the first trituration. The smaller the quantity of milk sugar used, the further may the comminution be carried. The author further concludes that no particles of the original substance can be present in any trituration higher than the third centesimal; hence it is impossible to make dilutions from such higher triturations.

Absorption of Drugs by the Placenta. — Porak[1] detected in the newborn infant traces of the following drugs which had been administered to the mother just previous to her labor: iodide of potassium, chloroform, salicylic acid, salicylate of soda, sulphate of quinine, santonin, oil of turpentine, and nitrate of potassa. Every medicine given to the mother was found in the urine of her new-born infant. There is no evidence that the placenta is an impermeable filter. Though there is apparently no law as regards the quantity or rapidity of the absorption through the placenta, yet there appears to be no variation in the law of absorption for any one drug. Porak also has noted that drugs pass out by the urine of the new-born less rapidly than in its later life; hence he concludes that the placenta helps in elimination of drugs during fœtal life.

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[1] Archives de Toxicologie, Jour. de Thér., and Gaz. hebdomadaire, April 18, 1879.

He draws the following therapeutical conclusions: that drugs administered to the mother at the time of labor are more liable to cause injury to the fœtus than when they have been given at an early period of pregnancy. In his opinion quinine injures the fœtus.

Aconite and Aconitia, their Physiological Action.[1] — From thirty-seven experiments on frogs, and a few others on rabbits, Dr. Mackenzie is led to draw deductions of which he gives the following summary: —

"(1.) Aconite and aconitia act primarily on the respiration by their influence on the respiratory centre and peripheral sensory branches of the vagus.

"(2.) They have no direct action on the heart, and only affect that viscus secondarily through the medium of the lungs.

"(3.) Their action on the nervous system consists in, firstly, irritating, and, secondly, paralyzing, the peripheral sensory nerves and posterior roots of the spinal nerves. They have no direct action on the brain or the vaso-motor nerves. They increase the irritability of the peripheral motor nerves and of the motor columns of the cord.

"(4.) They do not induce muscular paralysis, but, on the contrary, increase the irritability of voluntary muscles.

"(5.) They induce convulsions mainly through their augmenting the irritability of the anterior column of the cord, the motor nerves, and muscles.

"(6.) They firstly increase, and secondly diminish, temperature.

"(7.) Death ensues from asphyxia and respiratory collapse."

A comparison of the reported experiments with the above summary leads one to consider that the action of aconite is only partially determined. Undoubtedly we must agree with the author that the action of aconite upon the respiratory organs can be explained in the way he suggests, but then we may suspect that there may be also some direct action upon the vaso-motor system other than that communicated by the influence of the drug on the respiratory centre and peripheral sensory branches of the vagus; for instance, Dr. Mackenzie places reliance upon his own experiments on frogs, and in spite of the fact that these animals have a vicarious respiration by means of the skin. In his Experiments XXXIII., XXXIV., and XXXV. it is noted that after the administration of aconitia or aconite tincture an immediate transitory capillary stasis ensued in the blood-vessels of the web of the frog's foot. While admitting that the result of Experiment XXXVI. shows that aconite does not cause as much vaso-motor paralysis as that which follows a section of the sciatic nerve, we are hardly willing to agree with the author's hypothesis that the venous stasis following the administration of aconite is *entirely* due to "pulmonary impediments, or to the embarrassed heart having been deprived of the assistance of the vaso-motor nerves in maintaining the blood current." Experiments on animals, and clinical experience also, give proof that aconite undoubtedly diminishes the amount of blood in the capillaries. Experience seems to prove that this latter effect of aconite is mainly directed to the mucous surfaces generally, and consequently would determine the blood from these capillaries to the deeper organs, thus relieving a congestion of the mucous surface, and soothing its irritability and reflex action. We cannot leave off this criticism without commenting on the fact that Dr. Mackenzie trusts rather too implicitly to the apparent variation in size of the capillaries, without testing this effect by micrometric measurements.

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[1] G. Hunter Mackenzie, M. D., Practitioner, February and March, 1879.

On the Influence of Aconite in controlling Pneumonia.[1] — Dr. William Dobie gives four cases of acute pneumonia seen within twenty-four hours of the beginning of the attack, in which aconite relieved the hyperexia, sleeplessness, and grave constitutional disturbance. He prescribed the (B. P.) tincture of aconite in two-minim doses every half hour for two hours, and after that in one-minim doses every four hours. In one case the temperature was reduced in five hours from 104° F. to 100° F., and the cough and dyspnœa were much relieved. The following week the patient suffered from bronchitis, but there were no signs nor symptoms of any farther pneumonia. The reporter calls to mind the important fact that the U. S. Pharmacopœia tincture of aconite root is nearly three times the strength of that in the British, and consequently care should be exercised to specify which preparation is desired.

Mr. Spark[2] confirms the abortifacient power of aconite in acute inflammations from any cause, except those cases associated with a temperature below the normal or in adynamic conditions.

The value of aconite in those acute inflammations in which the general constitutional disturbance has not been succeeded by some local congestion of the mucous surfaces, or when the local inflammation has not passed into the exudative form, is, we believe, well substantiated by the experience of those physicians who have this drug at hand on their first visit to an anxious patient, and we have little hesitation in asserting that the beneficial effects are greater from frequently repeated small doses rather than from the administration of one full dose.

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[1] Practitioner, June, 1879.

[2] Practitioner, March, 1879.

(*To be concluded.*)

PROCEEDINGS OF THE BOSTON SOCIETY FOR MEDICAL OBSERVATION.

A. M. SUMNER, M. D., SECRETARY.

DECEMBER 2, 1878. *Cancer of Kidney.* — DR. O. W. DOE read the following account of a case of primary cancer of the kidney, and the report of the autopsy was made by Dr. Cutler: Miss G., forty-five years of age, single, dress-maker, always had had good health, except an attack of intermittent fever twenty-one years ago, until January, 1876, when she first consulted Dr. Doe for distress at the epigastrium and constipation. She was at that time quite anæmic, and complained of a general feeling of lassitude, but still continued at her work. Under tonic treatment she became quite strong again, but constantly complained of a tired feeling in the right lumbar region, with a dull pain extending from just above the crest of the ilium to the pubes, if she overworked. In December following, the distress at the epigastrium returned, attended by anorexia, pyrosis, constipation, headache, and a slight yellowish tinge of the conjunctivæ. The urine had at no time shown any trace of albumen. On February 19, 1877, she first noticed that her urine was bloody; it remained so most of the time for ten days, though at intervals it would be clear for a few hours. When the hæmorrhage was very free, it was attended by vomiting, but no acute pain. Three weeks later she had a second attack, coming on suddenly and lasting a week. At this time she suffered from a dull, aching pain in the right lumbar region, which would partially subside on lying down. During the interval between the hæmorrhages she continued at her work, but looked very pale and worn. On the morning of April 1st, before rising, she was seized with a severe attack of pain in the right lumbar region extending to the spine, and also into the groin. She said it seemed as if something had turned over in that region, internally. For a few days previously she had suffered from sharp, cutting pains there. On examination, a tumor was detected in the right lumbar region, extending anteriorly to within an inch of the umbilicus, and from the border of the ribs to the crest of the ilium, and posteriorly nearly to the spine. The tumor was quite movable, easily defined both anteriorly and posteriorly, of an irregular surface, and but very slightly sensitive on pressure. From this time the hæmorrhages would recur about once in three weeks, and were always preceded by increased pain in the lumbar region, which would be relieved as soon as the bleeding began. At times the pain would be very acute, like renal colic, just before the hæmorrhage, and on one occasion she found a blood clot of the ureter, an inch and a half in length, the pain ceasing immediately after its passage.

During the intervals she would regain her strength so as to be up and about her room, but she did not leave the house after May, 1877. In these attacks she suffered greatly from vomiting, consisting mostly of stringy mucus, and this came on irrespective of the time of taking food. Her bowels at times would be very loose, and then again become absolutely constipated; the latter condition being the more general one. The appetite sometimes would be ravenous, and she would retain all the nourishment taken; at other times the mildest liquids would be rejected. One peculiarity, later in the course of the disease, was that she could retain everything that she had a craving for, and even the sight of anything else would excite vomiting. Since April last she had been unable to leave her bed, and had suffered from intense pain in the tumor and extreme tenderness of the parts, frequently taking sixteen grains of opium in the twenty-four hours. At that time the tumor seemed to fill up the whole right lumbar region, and since then it has gradually diminished in size, the patient herself remarking that it was fast disappearing. Coinciding with the diminution in the size of the tumor, the urine was found to contain pus, which continued intermittingly and variable in amount, at one time nearly an ounce being present. The odor was extremely offensive, and remained so during the last two months of her illness, the attendants being frequently sickened thereby. The hæmorrhages gradually abated, so that during the last three months of her life there was only one attack. Four weeks before death she had a convulsion, lasting about ten minutes, and subsequently two other mild attacks. The pain had greatly subsided during this time, so that only an occasional injection per rectum of laudanum was required. During the last three weeks of life, when aroused, she would recognize her friends momentarily, and then lapse into a condition of wandering delirium. She died one week ago of exhaustion, emaciation being extreme. During her illness she was seen in consultation by Drs. Ellis and Beach, who agreed with him in the diagnosis of cancer of the kidney. The patient was one of ten children, the others all living and healthy. Her mother and maternal grandmother both died of "dropsy." Her father is living and in good health. Ebstein, in his treatise on cancer of the kidney, was able to find but sixty-one cases of primary cancer of the kidney reported, only six of these occurring between the ages of forty and fifty. Of fifty-six cases in which the sex was given, eighteen were females and thirty-eight were males. — Dr. Cutler reported that the body was excessively emaciated, and contained but little blood. The thoracic viscera, aside from anæmia and a slight fatty change in the heart, were not especially remarkable. The liver, spleen, stomach, and intestines partook of the general anæmia, but contained no other pathological change. The right kidney was rather irregular in its shape, though it retained its general outline. It was thirteen [illegible]timetres long, seven broad, and six thick. Its capsule when viewed externally was intact. On section the organ was found to be diseased throughout to nearly its whole extent. The general color of the section was tawny yellow interspersed with pearl gray, which latter tissue divided up the kidney into alveoli of variable size, which were distinctly appreciable to the unaided eye. Towards the pelvis of the kidney and encroaching on its cavity the disease was more recent, and gradually became more and more gray, until at the portion nearest the ureter it was distinctly gray. In several places the growth was softened, and in one or two points near the pelvis of the kidney it had ulcerated. A microscopic examination showed the growth to be polygonal epithelium cells contained in a connective tissue stroma of tolerable density. That is carcinoma. The portion of the tumor in the cortical region was oldest, and the cells had undergone an extensive fatty degeneration, and in places they were in a cheesy state. The lower posterior portion of the kidney, about four centimetres in length and half a centimetre in breadth, was uninvaded by the disease, and presented a pretty healthy appearance. As there was no disease of a like nature in the rest of the body, it is evident that it was primary cancer of the kidney. The left kidney was *not* enlarged; it weighed about four ounces, and on section presented a healthy appearance.

DISEASES OF THE RECTUM.[1]

We have already noticed the first edition of Dr. Allingham's book. There is, however, considerable change in the subsequent editions, the author's views becoming modified by further experience and improvements in modes of treatment. He is, if not an advocate, in favor of the elastic ligature. There is no pain, he says, if it is properly applied. His method is as follows: a piece of solid india-rubber ligature, one tenth of an inch in thickness, is passed in a loop on the finger into the rectum, where it is caught by a concealed hook, an ingenious little instrument invented by the author, passed through the fistula; the double ligature is thus drawn from within outwards, is put upon the stretch, and secured by a pewter clip slipped over the ends and pressed together by strong forceps. This cuts through in an average time of six days. The operations for cancer of the rectum are perhaps as interesting as any part of the book to the surgeon. He has not had the success claimed by German surgeons, whose experience leads one to believe that cancer of this region may be more common in Germany than in England or America. Of thirteen cases operated upon by him seven presented themselves within a year with a return of the disease. Two cases are mentioned where there was no return one year and three years respectively after the operation. He is of the opinion that a certain number of cases of disease described by him as rodent or lupoid ulcer have been mistaken for cancer. These ulcers generally resemble syphilis, but are unaffected by specific or indeed any form of treatment, the patients finally dying of exhaustion. We think there are few hospital surgeons who have not "wrestled" with these hopeless forms of disease, and would gladly welcome a remedy to relieve if not cure them, for they are exceedingly painful. Dr. Allingham recommends free excision, which in the future he proposes to do more thoroughly than hitherto. From these selections it will be seen that the work is fully up to the times, and we have no hesitation in saying that it is decidedly the most practical and readable book on diseases of the rectum that we have seen.

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[1] *Fistula, Hæmorrhoids, Painful Ulcer, Stricture, Prolapsus, and other Diseases of the Rectum, their Diagnosis and Treatment.* By William Allingham, F. R. C. S., Surgeon to St. Mark's Hospital for Diseases of the Rectum. Third Edition, partly rewritten. Philadelphia: Lindsay and Blakiston. 1879.

DISEASES PECULIAR TO WOMEN.[1]

Dr. Atthill is to be congratulated on the popularity which calls for the fifth edition of his little volume. It is certainly most practical in its character, it being no purpose of the author to enter into the discussion of theories which add much to the size and little to the usefulness of some works in this department of medicine. The book appears to have been carefully revised, and most of the chapter on Chronic Endometritis is rewritten.

We are sorry to see that the author clings to some of the old and, we are sure, less efficient means of examination: as, for example, making the digital examination with the patient on the side rather than on the back, and giving preference to the cylindrical speculum of Fergusson instead of Sims's retractor. With the careful directions which are given to be observed in the use of the uterine sound for the exploration of the interior of the uterus, we are surprised that the writer does not follow one step farther and advise the use of the uterine probe, which we have learned to be much more safe than, and quite as effectual as, the more unyielding sound.

It is to be regretted that the author has adhered to the plan of heading some of the chapters with terms which are symptomatic of diseases rather than with the names of the diseases themselves; and although this fact is carefully stated in the subsequent pages, yet we can but feel that it helps to fix in the mind of the student ideas quite the reverse of what the author intends to convey.

A just importance is ascribed to the use of hot water, and the proper method of taking the hot vaginal douche is fully described. With the exception of advising some of the harsher applications, as caustic potash and solid nitrate of silver, Section XVII., on Uterine Therapeutics, is remarkably good.

The work is thoroughly practical, as we have before said, and contains much knowledge useful to the general practitioner. As such it deserves hearty commendation.

ARTIFICIAL ANÆSTHESIA.[2]

The rapid sale within the short period of a year of Dr. Turnbull's book is sufficient testimony to the need that existed for a practical book on this subject. The author has covered the ground, which is far more extended than one would suppose, in a satisfactory manner. We are glad to see that he is "sound" on the question of the discovery of anæsthesia, and has not been led astray by recent pretensions to that honor. His analysis of the relative dangers of ether and chloroform, and of the deaths which have occurred during the administration of these agents, is exceedingly careful and just. He has collected a ghastly list of *three hundred and seventy deaths from chloroform*, one hundred and sixty of which are presented in tabular form, with all important details. The various modes of administering these and other agents, as nitrous oxide gas, are fully described. There is also a chapter on Hydrate of Chloral, and a very useful and interesting one on the various Medico-Legal Aspects of Anæsthetics. The second edition has been much enlarged, and the work presents a large amount of valuable information.

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[1] *Clinical Lectures on Diseases Peculiar to Women.* By Lowber Atthill, M. D. Univ. Dublin. Philadelphia: Lindsay and Blakiston. 1879.

[2] *The Advantages and Accidents of Artificial Anæsthesia: A Manual of Anæsthetic Agents and their Employment in the Treatment of Disease.* By Laurence Turnbull, M. D., Ph. G. Second Edition, revised and enlarged. With Twenty-Seven Illustrations. Philadelphia: Lindsay and Blakiston. 1879.

OPHTHALMIC OUT-PATIENT PRACTICE.[1]

SHORT cuts to knowledge are deceitful. Pocket text-books should, with few exceptions, be labeled "dangerous." It may be laid down as an almost invariable rule that the briefer the book the more care and skill should be employed in its preparation. But this rule is seldom followed.

Mr. Higgens's little book is no exception to the class to which it belongs. It has its good points, but it also has bad ones, and those to whom alone such a book could be of value are exactly those who are unable to distinguish between its merits and demerits.

We should dislike to have any one attempt to evert our own upper lid by following strictly the directions given on page 10, and by the method given on page 22 for raising the upper lid of a struggling and sensitive child a dangerous amount of pressure on the eye must often be exerted by an unskilled manipulator. The employment of fomentations of poppy heads in the early stage of catarrhal "ophthalmia," if there be much pain and congestion, with only scanty discharge (page 11), may sometimes be effective, but often will aggravate the disease. Cold applications are far better.

"In any case of purulent ophthalmia, if we find the cornea ulcerated, we must support it by the application of a good pad and bandage; by this means we may often save perforation; the bandage must, however, be frequently removed in order to apply the alum lotion, with which the pad should also be kept wetted." (Page 19.) We should object to the pad and bandage in such case *in toto.* This is "out-patient practice." Certainly, if the pad-and-bandage treatment is ever to be sanctioned, it should be so only under the constant care of the physician, not when left to the usual surroundings of the patient. There is no hint of atropine with ulcer of the cornea in purulent ophthalmia.

INFLUENCE OF POSTURE ON WOMEN.[2]

THE position which this book tries to establish is altogether a strained one, and we are sure that the author will find great difficulty in changing some of the customs of our people, however loudly he may cry out against them. Notably among these is the use of chairs for sitting. The man who puts himself in direct opposition to established customs is oftentimes styled fanatical, while he who endeavors so to modify them as to make them subserve the purposes for which he sees the great necessity is as often acknowledged a public benefactor. Recognizing many of the ill effects which posture has in the departments of medicine of which the volume treats, we think the author's purpose would have met with much better success had the hints been more mildly drawn and the book been much condensed. We dislike exceedingly the nomenclature used. It only tends to confuse the reader, and is certainly less definite than that ordinarily employed. Chapter III., on Hyperæmic Disorders of the Pelvic Organs produced by Posture, and Chapter IV., on The Influence of Posture upon the Functions of the Pelvic Organs, appear to us the most valuable, although even in these the subject is overdrawn. It would be well for every practitioner to read carefully the headings of the chapters and the subjects of the subdivisions, which are well arranged for this sort of perusal, and we are quite sure that the remainder will be suggested to his mind without taking the time to read it.

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[1] *Ophthalmic Out-Patient Practice.* By CHARLES HIGGENS, F. R. C. S., etc. Second Edition. Philadelphia: Lindsay and Blakiston. 1879. 12mo, pp. 116.

[2] *The Influence of Posture on Women in Gynecic and Obstetric Practice.* By J. H. AVELING, M. D. Philadelphia: Lindsay and Blakiston. 1879.

VAUGHAN'S CHEMICAL PHYSIOLOGY AND PATHOLOGY.[1]

This book is devoted chiefly to the consideration of the urine, but treats briefly of the chemistry of the blood, gastric juice, and other animal fluids, as well as of the solid tissues. It is not a complete text-book, but is made up of notes upon Dr. Vaughan's lectures on these subjects, and is especially prepared for the use of his own students. It is apparently well adapted to this purpose, and doubtless poves useful to them.

THE PATHOLOGICAL SOCIETY OF PHILADELPHIA.[2]

The present volume contains the report of the proceedings of this well-known society for the year 1878.

It is no longer necessary to say anything of the general arrangement of the contents of these publications, or to call attention to the abundance and frequent rarity of the material which is presented. The society gives evidence of continued activity, and the new members are worthy successors of those whose names have become prominent.

In one respect the society seems to fall short, namely, in the presentation of series of cases and the generalizations to be drawn from comprehensive papers. The archives of the society now contain so many single cases that it may be considered almost the duty of the individual member to refer to the records before calling the attention of his fellows to the specimen he may have to offer, especially when, as is so often the case, its suggestions are of far greater value than its more evident qualities. The earlier transactions of the society show that such work was often done, and the uniformity of classification preserved throughout the volumes makes the work an easy task.

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[1] *Lecture Notes on Chemical Physiology and Pathology.* By Victor C. Vaughan, M. D., Ph. D., Lecturer on Medical Chemistry in the University of Michigan, etc. Second Edition, revised and enlarged. Ann Arbor. 1879.

[2] *Transactions of the Pathological Society of Philadelphia.* Volume Eighth. Edited by J. Henry C. Simes, M. D. Philadelphia: Printed for the Society by J. B. Lippincott & Co. 1879.

In the paper of Dr. Tyson on The Causal Lesions of Puerperal Eclampsia there is a striking exception to the inference from these remarks. It shows so much labor as to excite the warmest approbation, and almost calls for regret that the results should not come before a larger audience than the present inclosure is likely to reach. It is fair to infer, however, that the evidence presented and the conclusions drawn are to appear in some form in the work on the kidneys which Dr. Tyson is known to have in hand. R. H. F.

THE DEMAND FOR A NATIONAL BOARD OF HEALTH.

When the General Board of Health came into existence in England in 1848, it was so far in advance of public opinion that it soon fell to the ground, and a similar fate unfortunately befell the splendid sanitary organization which Mr. Simon had built up out of its ruins. The opponents of the first state board of health in this country, too, were very numerous, and in its early days were prevented from abolishing it chiefly by the good judgment of its secretary, the lamented Dr. George Derby, supported by an enlightened public opinion. With that board so well established that it could be mixed up with paupers and lunatics, even on a supposed political necessity, only by deluding people into the belief that the combination was to benefit the cause of public health and be of no detriment to the board itself, and with twenty other boards established mainly on the same principle, we cannot agree with our distinguished correspondent, whose letter appears to-day, that the National Board of Health is a premature birth. Indeed, we have persistently urged that the country not only was ready for it, but demanded it.

If the inner history of its creation is ever told, we should expect to find something very interesting in the story of demolished air-castles and political aspirations, and its establishment on a basis much better than might have been expected. One thing is certain: that Congress never would have passed the bills bringing the board into existence, and much more giving it a half million dollars to spend, *even conditionally*, had not a strong public sentiment on the part of their constituents forced them to it. Indeed, we hold that the people in the United States are more ready to-day to support by legislation and money a national board devoted solely to the protection of the public health than the English even, among whom the start was made a quarter of a century before we took the matter in hand.

Naturally, a board organized at such short notice must be far from perfect, but a very important part of its task is to place before the next Congress a definite plan for a permanent national health organization, after having consulted with the National Academy and with the prominent sanitarians and state boards of health throughout the country. In this way it will be possible to get the best practicable results, although there is so much of the best elements in the present board that we should be willing to have it go on as it is.

No one who fairly considers the scientific investigations which have been set on foot by the board, and the great work which it has done at the South during the present summer, can for a moment question whether it has justified its existence. The sanitary work which has been performed within the past few months in New Orleans, Memphis, and indeed through the whole Mississippi Valley, may reasonably be supposed to have prevented a wide-spread epidemic of yellow fever. To this successful result the National Board of Health has been the chief contributor, through its members in those two cities, by its medical inspectors, with money, in advice, and finally by its moral support of the few men who had to fight popular prejudice, ignorance, and supposed commercial interests in restricting the plague.

MEDICAL NOTES.

— The Basel Board of Health reports that in that city the prevalence of typhoid fever has not borne out the theory of Pettenkofer in associating it with fluctuations in the level of the ground-water. Diphtheria is treated by the board, in urgent cases, by evacuation of the dwelling and removal of the inmates, — the sick to a hospital and the well to other places. The singular coincidence of scarlet fever and measles in the same individual, with very short intervals, was observed several times.

— The report of Dr. Chamberlain, secretary of the Connecticut State Board of Health, for the month of July, indicates an increasing accuracy in the registration of vital statistics, a greater interest than ever before in local authorities to coöperate with the board, and on the whole a fair condition of the public health. The prevalence of malarial diseases in certain localities in the State, and especially its reappearance after years of absence, are explained by various causes which tend to produce partial saturation of the soil. Already the removal of obstructions to natural drainage has resulted in a diminution of the prevalence of intermittent fever and also of dysentery.

PROVIDENCE.

— A considerable number of cases of glanders having occurred of late among horses in this city, the Rhode Island State Board of Health has taken energetic measures to check the spread of the disease. Several horses found suffering from the affection have been seized and killed, though not without some opposition on the part of the owners. The board has issued a Public Health Tract entitled Glanders and Farcy, giving a detailed description of the disease, and directions for disinfecting stables where diseased horses have been kept. The sudden outbreak of the disease in this vicinity has been traced to cases existing in circus troupes which visited this city in May and June.

— The intestinal diseases of children have prevailed to a very slight extent in this city during the heated season. This is attributed in part to the geographical position of the city. The influence of sea air in the prevention and cure of diseases of this class is now universally recognized. Our prevailing winds in summer are from the south, and these winds reach us directly from the ocean without passing over any intervening land. Narragansett Bay, penetrating as it does to the very heart of the city, affords an unobstructed passage for these winds, and contributes in no small degree to the low death-rate which this city shows. Last week only two deaths occurred from cholera infantum, which may be considered a remarkable record for a city having a hundred thousand inhabitants.

— The annual muster of the Rhode Island militia took place last week at Oakland Beach. About a thousand men were in camp for three days. Much inconvenience was experienced from the lack of pure water. The only source from which a supply could be obtained was an old well which had not been used for two years, and which had become so foul that the impurity of the water was perceptible not only to taste, but to smell and sight as well. The consequence was that in forty-eight hours ninety men were on the sick list with diarrhœa and dysentery. Fortunately no fatal cases occurred, and all recovered as soon as they returned to their homes. It is to be hoped that next year the question of water supply will be more fully considered in selecting a site for the annual encampment.

LITERARY NOTES.

— The latest number of Dr. Keen's Health Primers is entitled The Summer and its Diseases. It is written by Dr. James C. Wilson, of Philadelphia, and treats of sunstroke, diarrhœal diseases, hay fever, and the maladies to which the skin is liable from heat and poisonous plants. It is prepared in the usual neat style of the preceding volume, and contains condensed and reliable information on the subjects of which it treats.

— The transactions of the Medical Society of Tennessee are chiefly noticeable for the small amount of contribution to the study of yellow fever. There is but one paper on that subject, by Dr. G. B. Thornton, of Memphis, which contains notes of pulse and temperature of about one hundred and fifty cases. We notice one case where the thermometer indicated 108° F.; the patient was a child, and recovered. As a rule, the temperatures do not appear to have had a high range. We are glad to learn that a systematic study of the disease has been set on foot in the State, and valuable and interesting results are promised for next year.

— The volume of Medical Communications of the Massachusetts Medical Society has appeared, and contains, in addition to the proceedings and annual discourse, papers by Dr. James B. Ayer, Dr. T. W. Fisher, and Dr. Charles H. Williams.

— The South Carolina Medical Association held its twenty-ninth annual session in Charleston in April last. The most noticeable paper in its present volume of Transactions is by Dr. Francis L. Parker, being a collection of notes of one hundred and thirty-two cases of stone in the bladder, presumably all that have occurred in the medical practice of the State. It is interesting to note that of these only five were treated by lithotrity. The greater portion of those cases originating in the State came from Charleston.

— The State Medical Society of Arkansas has been organized but four years. Its Transactions contain an earnest appeal by the president, Dr. Horner, in his address, for the formation of a state board of health, wherein he points out the great loss of prosperity sustained by the State by its neglect of sanitary science. A different course "would have more than doubled the population during the past ten years." The profession has urged this subject repeatedly, but has not met with a favorable response from the state government.

THE NATIONAL BOARD OF HEALTH.

Mr. Editor, — I have been prevented, by an accident that happened to me in February last, from attending any of the meetings of the National Board of Health until a few weeks ago.

The insinuations and severe or contemptuous criticisms occasionally indulged in by the Northern daily press against the operations and members of the board I thought were undeserved, but my want of knowledge of *the* "*inward workings*" of the board at Washington has checked my desire to defend it or its members. Last month I was able to attend one of its meetings. It continued three days, and I have rarely seen so much hard work done in the same length of time. From early in the forenoon till evening the board was in session. Telegrams were constantly being received and sent from and to various parts of the country relative to many matters; orders here and there were being dictated to clerks, some of whom "worked from fourteen to sixteen hours daily." Certainly, there was no lack of energy displayed. And, for one, I was fairly tired out by my three days of work, even as a simple member. The number and variety of new questions constantly coming up kept our minds always alert.

Any one who has paid attention to the progress of the sanitary education of our people must have been convinced that a national board of health was a foregone conclusion, when that education should be sufficiently advanced. Unfortunately, as I deem it for the board's reputation and efficiency, it was prematurely hurried into life by the panic caused in the public mind at the prospect of a repetition, this year, of the horrors of the last year's epidemic in our Southern States. Congress influenced by that panic hastily passed the bill creating the board. The old discussion of national and state rights hampered the members of Congress, and, as usual, when any large sums of money are likely to be expended, some unlooked-for things were done. Immense powers were, *apparently*, given to the board to regulate the transactions of one part of the country with another, and more than half a million of dollars was put, *apparently*, at its disposal, to enable it to perform its duties.

I use this qualifying expression "apparently" with the intention of being strictly true in the use of words. The attorney-general of the United States decided, after due consideration of the terms of the bill, that the board's rules and regulations would be all null and void, *unless adopted by the local sanitary authorities!* The board therefore is obliged virtually to say, "Here are rules which we deem essential — they are the least that ought to be required. You *may* have others, but they must include, in principle, those proposed by us, or you shall not receive a dime of the money granted us by Congress." Of course our rules have been readily adopted by all those places threatened with fever. They have been simply ignored, I suspect, by others. Still further, not a dollar can be spent without the *close* supervision of the comptroller of the treasury. The most minute items of each account are required, and all may be rejected by the said comptroller of the treasury. For example, one of our members, after passing some time at Washington, had upon his bill a small item for washing. It was rejected! You will see from the above statement that our authority for making rules for the country is mightily cramped, and our power over the moneys granted by Congress is watched with Argus eyes by the Washington officials. In one contingency, however, the board has very great and summary power, if the president of the United States consents. It has already occurred and it may hereafter happen that for some reason, either carelessness or willfulness or inability under the laws of a State, a certain community may find itself unprotected from the incursion of contagious or infectious diseases, and then this power can be invoked. For example, Philadelphia and Baltimore and other cities near these two have been heretofore unable to defend themselves from "runners" from these cities, who, after boarding vessels infected with the pestilential diseases, have brought back the same to these various places. Neither Pennsylvania, Delaware, nor Maryland had control of the waters leading to these several localities. The Board of Health of Philadelphia, under these circumstances, appealed to the National Board of Health for defense, and the president, after hearing the facts in the case, asked the board to draw up a plan for establishing a quarantine station at a spot where the United States will have control or may by the law obtain it, and these important cities are thus defended from the hazards to which previously they have been subjected.

Some of the correspondents of the daily papers have alluded to the "uselessness" of the boards; while others name with rebuke its "reckless extravagance." I do not think that such expressions can be justly applied.

The short space of time during which the board has been in operation has prevented anything *very striking* from being manifested as the result of its work. But I think the following may be predicated of it. By its circulars and by its special agents throughout the Southwest, it has greatly assisted the people there to prepare for the threatened epidemic of yellow fever; it has urged everywhere the duty of cleanliness; where there has been poverty and the epidemic has broken out it has, with the permission of the secretary of the treasury, assisted pecuniarily the sanitary authorities. Various requisitions have been made preparatory to any threatened epidemic. Over one hundred thousand dollars have in this way been *hypothetically* promised by the treasury department; but only about twenty thousand have been actually spent, and if no epidemic of a general character should attack the Mississippi Valley, not a dollar of this only *possibly needed* money will be expended.

It has under orders, and now operating chiefly in and around Memphis and the adjacent country, sixteen inspectors under pay. It has eight more, in reserve, without pay. The story of Boston inspectorship, at the rate of eighteen dollars a day, as told by a daily paper, is simply a fabrication, originating no one knows how. By the board's means chiefly, Memphis has been surrounded by an impenetrable sanitary belt. No one can enter it save by stealth; no one can leave it without a license from the health authorities of the place, and only after six hours of fumigation and disinfection of all of his clothing. A telegram is also sent to the city where he intends to go, and a certificate of the facts in the case given to him to present at any place at which he may stop as a refugee. No railroad car from the surrounding country can come within a radius of eighty miles. Mounted inspectors around the city guard approaches to it both day and night. The result *apparently* has been that the disease, instead of devastating a large part of the valley, has been pent up within narrow limits. Horrible enough have been its effects in that ill-fated city of Memphis. But when we hear of the filth in many of the houses, and how stolidly indifferent to the propriety of cleansing every homestead the authorities and citizens have been, wholly ignoring in fact the warning lessons of last summer, it seems but a terrible, though not unexpected punishment for the total neglect by all of the divine law of cleanliness. What can we hope of any society which will permit even one family of six or seven persons to cut a hole in the floor in one of the lower rooms of the house and then use the aperture for a water-closet and urinal into the cellar below! *A priori*, one would have anticipated the fatal result of almost any epidemic under such circumstances. Of course, the board had no control of such cases until after the epidemic burst out, and then it was too late to save the stricken family.

The board has assisted in the establishment of a camp outside of the city, and has urged all who can leave it to depart or to take refuge at the camp. Unfortunately, the ignorant negroes, having little faith in the white man, refuse very generally to leave home. At least thirty thousand persons have quitted Memphis. About ten thousand remain, the great majority of whom are negroes.

But the board has not considered that its chief duty was to Memphis or to any single place however suffering. It looks forward, and would take the place, as far as it can, of instructor of the whole people in sanitary matters. It wishes to prevent disease. It has now a scientific commission at Havana studying yellow fever at its origin. It seeks to gain a sanitary organization for the whole country, and therefore asks for the coöperation of all state and local boards of health. Only by an intimate union between the national and the state sanitary authorities can a really national sanitary organization be effected. The board claims the sympathy of all editors and others capable of influencing to good the public mind. The members ask nothing for themselves. The pay granted by Congress to gentlemen from distant parts of the country to induce them to leave their business and go to Washington is so ridiculously small that nothing but a sense of duty, which ought to animate every citizen of a republic to uphold a public work of beneficence, mingled, doubtless, with a certain not dishonorable pride in the fact of his being selected by the president to carry forward this important measure, could induce any one to consent to become a member of the National Board of Health.

The members therefore feel that they have a right to the sympathy and forbearance of all good men and women, upon the ground of their being engaged in the sacred but herculean task of teaching this nation to cleanse itself and to ward off fatal disease.

Yours very truly, HENRY I. BOWDITCH.

SHORT COMMUNICATIONS.

THE NATURE OF THE DIPHTHERITIC POISON.

BY A. R. BECKER, BERKELEY, CAL.

DIPHTHERIA is always a subject of interest, both in itself and because it is a prominent member of the group of diseases generally, though erroneously, known as the zymotic diseases. This group can only be explained logically by the germ theory, which teaches us that these diseases can be propagated *only* by the reception into a susceptible system of the germs or contagia given off from the bodies of patients suffering from the *same* disease. But, in the first volume of Ziemssen's Cyclopædia of Medicine, Professor Oertel, of Munich, propounds a very different theory, which I propose to examine briefly.

In 1868, Oertel himself, together with Buhl and Hueter, discovered the constant presence of one or other form of bacteria — the most frequent being the spherical form, or micrococcus — in all mucous and submucous tissues affected by diphtheria; and these observations were confirmed by Von Recklinghausen, Nassiloff, Klebs, and several others. In cases which advanced to the septic, and still more to the gangrenous, condition, these bacteria were found in enormous quantities. Moreover, Oertel, in the course of his "pathological experimentation," "sought, by the infection of animals, to exhibit clearly the relation existing between the general disease and the secondary localization in the air-passages. If it is true that diphtheria is a general infectious disease, which, secondarily, makes its first local appearance upon the mucous membrane of the throat and air-passages, just as other infectious diseases produce their chief pathological changes always in certain organs, so, when diphtheria is induced in an animal by the introduction of diphtheritic poison, must the disease of necessity always localize itself secondarily upon the mucous membrane of the throat, larynx, and the air-tubes. Now, according to these experiments which I made, *diphtheria fixes itself at the point of inoculation*, — the centre of infection, if we may so call the part first attacked, — and *radiates from that part throughout the whole body*."

This emphatically declares diphtheria to be, not a constitutional disease with a local lesion, but a local lesion which produces a constitutional disturbance. I do not consider it necessary to quote more fully, because the work has such a wide circulation, which is one principal reason why I deem it desirable to controvert the views therein expressed.

In his experiments he did secure a local lesion, where, too, he found bacteria; and he secured also a constitutional disturbance, which sometimes proved fatal and sometimes not. To review: he and several others found bacteria in all cases of diphtheria, which increased in numbers as the disease approached the gangrenous form; and animals inoculated with the discharge presented a local lesion, which also showed bacteria and more or less fatal constitutional disturbance. In the fatal cases bacteria were also found in the blood and internal organs.

Now bacteria have been shown by Dr. Bastian and others to be *a result of animal decomposition*. Such decomposition does go on in the mucous and submucous tissues affected by diphtheria, and more and more as the case approaches the gangrenous condition. Patients who die in this state die from *septicæmia*, and bacteria are naturally found in the blood and internal organs. And the disease which these gentlemen conveyed to the subjects of their experiments was *not* diphtheria at all, but *septicæmia*. And so their conclusion, that diphtheria is a local lesion producing a constitutional disturbance, falls to the ground.

OFFICIAL LIST OF CHANGES OF STATIONS AND DUTIES OF OFFICERS OF THE MEDICAL DEPARTMENT U. S. ARMY, FROM SEPTEMBER 5, 1879, TO SEPTEMBER 12, 1879.

JANEWAY, J. H., major and surgeon. Assigned to duty as post surgeon Fort Columbus, New York harbor, and attending surgeon head-quarters Military Division of the Atlantic. S. O. 58, Mil. Div. of the Atlantic, September 5, 1879.

SMART, CHARLES, captain and assistant surgeon. Relieved from duty in the Department of the East, and to report for temporary duty to the president of the National Board of Health, Washington, D. C., for chemical and microscopical work. S. O. 204, C. S. A. G. O., September 4, 1879.

. Vickery, R. S., captain and assistant surgeon. By direction of the secretary of war, the operation of so much of Par. 3, S. O. 195, A. G. O., August 25, 1879, as relates to this officer, is suspended until October 4, 1879. S. O. 208, C. S. A. G. O., September 9, 1879.

Steinmetz, W. R., captain and assistant surgeon, having been found by an army retiring board incapacitated for active service, is by direction of the secretary of war granted leave of absence until further orders, on account of disability. S. O. 209, C. S. A. G. O., September 10, 1879.

Turrill, H. S., lieutenant and assistant surgeon. Assigned to temporary duty as assistant to the attending surgeon, head-quarters Military Division of the Atlantic, and to the post surgeon, Fort Columbus, New York harbor. S. O., 58, Military Division of the Atlantic, September 5, 1879.

Bamster, J. M., lieutenant and assistant surgeon. Relieved from duty at Fort Leavenworth, Kansas, and assigned to duty at Fort Reno, Indian Territory. S. O. 171, Department of Missouri, September 3, 1879.

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CHANGES IN THE MEDICAL CORPS OF THE NAVY FOR THE WEEK ENDING SEPTEMBER 12, 1879.

September 9th. Surgeon B. S. Mackie to the naval rendezvous, Philadelphia, Pa.

September 10th. Medical Inspector J. C. Spear to the U. S. S. Trenton and as fleet surgeon of the European Station, per steamer of September 20th.

September 10th. Medical Inspector D. Bloodgood to be detached as fleet surgeon European Station on reporting of relief, and return home.

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REPORTED MORTALITY FOR THE WEEK ENDING SEPTEMBER 6, 1879.

Cities.	Population estimated for July, 1879.	Reported Deaths in each.	Annual Death-Rate per 1000 during the Week.	Percentage of total Deaths from				
				The Principal "Zymotic" Diseases.	Diarrhœal Diseases.	Diphtheria and Croup.	Pneumonia.	Typhoid Fever.
New York	1,085,000	530	25.54	29.24	20.38	3.02	4.34	0.94
Philadelphia	901,380	345	19.99	22.03	12.22	3.19	1.74	2.90
Brooklyn	564,400	225	20.80	29.33	20.89	4.89	3.50	0.44
Chicago	—	159	—	39.61	14.49	10.06	1.82	5.03
St. Louis	—	111	—	30.63	18.92	2.72	2.72	0.91
Baltimore	365,000	145	20.71	28.96	9.65	5.52	4.12	5.52
Boston	360,000	120	17.38	39.17	26.67	5.00	3.33	2.50
Cincinnati	280,000	106	26.56	18.87	10.38	0.94	3.76	1.86
New Orleans	210,000	96	23.80	12.50	3.13	1.04	2.08	—
Cleveland	160,000	54	17.60	48.15	29.63	5.93	5.93	5.93
District of Columbia	170,000	66	20.20	28.79	18.18	1.52	6.06	3.03
Pittsburgh	—	—	—	—	—	—	—	—
Buffalo	—	—	—	—	—	—	—	—
Milwaukee	127,000	44	18.07	25.00	13.64	6.82	4.55	2.27
Providence	101,500	32	16.46	25.00	12.50	1.70	1.70	1.70
New Haven	60,000	17	14.52	5.89	5.89	—	—	—
Charleston	57,000	17	15.30	23.53	23.53	—	—	—
Nashville	27,000	9	17.40	22.22	22.22	—	—	—
Lowell	53,300	11	10.76	9.09	9.09	—	—	—
Worcester	52,500	25	24.83	12.00	—	4.00	—	4.00
Cambridge	50,000	19	23.74	26.31	21.05	—	—	—
Fall River	48,500	—	—	—	—	—	—	—
Lawrence	38,200	15	20.48	26.67	13.33	13.33	—	—
Lynn	34,000	14	21.48	21.43	7.14	—	—	7.14
Springfield	31,500	11	18.21	45.45	18.18	9.09	—	9.09
New Bedford	27,000	19	36.69	42.11	31.58	5.26	—	5.26
Salem	26,400	12	23.70	16.67	8.33	—	—	—
Somerville	23,350	10	22.33	40.00	30.00	10.00	—	—
Chelsea	20,800	6	15.04	33.33	16.67	16.67	—	—
Taunton	20,200	3	7.74	—	—	—	—	—
Holyoke	18,200	8	22.92	12.50	12.50	—	—	—
Gloucester	17,100	6	18.29	50.00	—	—	—	—
Newton	17,100	7	21.34	28.57	14.28	14.28	—	—
Haverhill	15,300	8	27.26	50.00	50.00	—	—	—
Newburyport	13,500	6	23.17	33.33	16.67	—	—	16.67
Pittsfield	12,650	—	—	—	—	—	—	—
Fitchburg	12,500	4	16.68	—	—	—	—	—
Milford	9,800	1	5.32	—	—	—	—	—

Two thousand two hundred and sixty-one deaths were reported: principal "zymotic" diseases 681, diarrhœal diseases 373, consumption 303, diphtheria and croup 89, pneumonia 68, typhoid fever 50, scarlet fever 40, bronchitis 39, whooping-cough 35, malarial fevers 28, cerebro-spinal meningitis 13, erysipelas six, yellow fever (New Orleans) three, measles two, small-pox none. From *scarlet fever*, Chicago eight, Baltimore seven, New York six, Philadelphia five, Boston four, Cincinnati and Cleveland three, Brooklyn two, Providence and Gloucester one. *Whooping-cough*, New York 10, Brooklyn five, Chicago four, Philadelphia and Cincinnati three, Cleveland two, St. Louis, Boston, District of Columbia, Milwaukee, Providence, Springfield, Salem, and Gloucester one. The reduction in the mortality from diphtheria and croup, diarrhœal diseases, and scarlet fever is considerable. Whooping-cough and bronchitis were more fatal. In Norfolk, during August, diarrhœal diseases and malarial fevers were prevalent.

The meteorological record for the week in Boston was as follows: —

Date.	Barometer.	Thermometer.			Relative Humidity.				Direction of Wind.			Velocity of Wind.			State of Weather.[1]			Rainfall.	
	Mean.	Mean.	Maximum.	Minimum.	7 A. M.	2 P. M.	9 P. M.	Mean.	7 A. M.	2 P. M.	9 P. M.	7 A. M.	2 P. M.	9 P. M.	7 A. M.	2 P. M.	9 P. M.	Duration.	Amount in Inches.
Aug. 31	29.94	68	81	58	71	36	67	58	W	NW	W	11	10	6	C	C	C	—	—
Sept. 1	29 93	74	89	61	74	52	88	71	W	SW	SW	2	4	8	H	H	H	—	—
" 2	29.97	76	88	67	85	56	78	73	SW	SW	W	14	15	6	H	H	R	.66	.02
" 3	30.00	66	75	62	90	78	100	89	W	E	E	1	7	4	O	H	O	—	—
" 4	29.83	62	65	61	100	100	97	99	E	E	NW	18	5	9	R	R	O	15.1	.81
" 5	29.98	63	75	57	46	46	71	71	W	NW	W	4	13	4	O	F	C	—	—
" 6	30.10	61	75	52	40	40	76	64	NW	W	S	4	5	6	C	C	C	—	—
Week.	29.964	67	86	53				75		W		1329 miles.						15.8	.83

[1] O., cloudy; C., clear; F., fair; G., fog; H., hazy; S., smoky; R., rain; T., threatening.

There were 132 cases and 48 deaths from yellow fever during the week ending September 6th in Memphis; two cases in New Orleans, five at Morgan City, and one death at Buntyn station.

For the week ending August 16th, in 149 German cities, with an estimated population of 7,523,495, the death-rate was 27.2 against 28.4 of the previous week, with an increase of diphtheria and diarrhœa. Three thousand nine hundred and thirty deaths were reported: diarrhœal diseases 901, consumption 443, lung diseases 224, diphtheria and croup 102, scarlet fever 53, typhoid fever 44, whooping-cough 37, measles 28, puerperal fever 16, small-pox one (Dantzic). The death-rates ranged from 16.7 in Bremen to 41.4 in Chemnitz; Munich 28.3; Dresden 22.7; Berlin 32.0; Leipsic 24.3; Hamburg 25.1; Hanover 22.8; Cologne 24.9; Frankfort 24.3.

For the week ending August 23d, in the 20 English cities and towns, with a population estimated at 7,383,999, the death-rate was 18.1. Two thousand five hundred and ninety deaths were reported: diarrhœa 258, lung diseases 165, scarlet fever 112, whooping-cough 64, measles 63, fever 34, diphtheria 13, small-pox (London) four. The death-rates ranged from 13.1 in Portsmouth to 20.5 in Salford; London 19.1; Bristol 15.4; Birmingham 14.1; Liverpool 19.7; Manchester 17.6. In 28 Belgian cities and towns of 10,000 population and over, the death-rate was 20.9; in 24 of less size, 21.3, — diarrhœa being very prevalent, measles, typhoid fever, small-pox, and whooping cough moderately so, and scarlet fever and diphtheria very rare. In the 20 prominent Swiss towns, whooping-cough was quite prevalent, measles less so, and the other zymotic diseases showed a very low mortality.

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BOOKS AND PAMPHLETS RECEIVED. — A Guide to Surgical Diagnosis. By Christopher Heath, F. R. C. S. Philadelphia: Lindsay and Blakiston. 1879. (A. Williams & Co.)

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LECTURES.

CLINICAL LECTURES ON THE PHYSIOLOGICAL PATHOLOGY OF SYPHILIS.[1]

DELIVERED AT THE COLLEGE OF PHYSICIANS AND SURGEONS, NEW YORK, SESSION OF 1878–79.

BY FESSENDEN N. OTIS, M. D.,
Clinical Professor of Genito-Urinary Diseases, etc.

IN seeking an explanation of the occurrence of this roseolous eruption, we naturally ask, then, What can and is most likely to produce "*long-continued dilatation of capillaries and stasis of the blood?*" Inasmuch as it is known that the capillary vessels derive their nerve supply from the sympathetic nervous system, their loss of contractility, and consequent dilatation, could occur only through some impression upon the sympathetic system, which would cause a paresis, more or less pronounced, of the nerves supplying the walls of the capillaries.

In an article on the Physiology of Syphilitic Infection, published in 1872, I took occasion to discuss the evidences for and against the functional character of the roseola of syphilis. It now appears to me that I cannot do better than to quote the views of authorities on this subject, and my comments upon them at that time, which, after several years of further study and observation in this connection, I find no occasion to alter.

Thus Mr. Erasmus Wilson, a distinguished English authority on diseases of the skin and syphilis, says, "It is now (1871) well understood that the influence of the *vaso-motor nerves* is involved in the production of *roseolas.*"

It is proper, however, to state here that while Mr. Wilson describes no less than eighteen varieties of roseola, he practically excludes the roseola of syphilis by attributing its occurrence to the presence of the syphilitic virus in process of expulsion from the system, and by assuming that it may subsequently be developed into other and later manifestations of syphilis. Inasmuch as this idea is, perhaps, the generally accepted one, it appears to me desirable to place the whole matter before you in such a way that we may, if possible, be able to determine whether the roseola of syphilis is a true roseola, dependent simply upon an impression made upon the sympathetic nerves, like other roseolas, or whether it is a form of syphilitic manifestation, and pathologically different from other roseolas, which, in some curious and hidden way, gradually develops into other manifestations of syphilis. Mr. Wilson describes it thus: "*Roseola syphilitica* commonly presents itself in the form of undefined patches, giving to the skin an appearance identical with that of the common idiopathic roseola, or measles, and is due, like the two latter, to the manner of distribution of the blood-vessels of the skin. It is preceded by a peculiar fever called the syphilitic, and bears a resemblance in its pathognomonic symptoms to measles, scarlet fever, and small-pox: (1) in the nervous depression, showing the stagnating influence of the accumulated poison; (2) in the congestion of the mucous membranes, particularly that of the fauces, showing the effort made by the blood-vessels to eject the poison through the tissue; and (3) in the cutaneous exanthema, which completes the triumph of the pressure from within, and is the sign that the poison is driven to the surface, and is in process of expulsion." There is, then, no uncertainty about the fact that Mr. Wilson considers syphilitic roseola the result of the process of elimination of the syphilitic material (whatever, in his opinion, that may be) through the skin. This view, elaborated more fully by Mr. Wilson than by any other writer on syphilitic or cutaneous diseases, I do not find contradicted by any except M. Diday, of Lyons, but it is accepted directly or tacitly by all the other authorities I have been able to consult. Very naturally, Mr. Wilson does not stop at this point, but goes on to trace a connection between syphilitic roseola and the subsequent manifestations of the disease. Thus in his last lectures on Dermatology (published in 1871) he says, "Chancre, the focus of inlet of the poison has run its course and healed up. Six weeks afterward, an exanthema, which is identical in appearance with roseola, is developed in the skin. . . . Another six weeks passes by, and a second exanthema appears; no longer a roseola, like the first, but an eruption of *papulæ*, corresponding to the common *lichen*. Then another interval of six weeks transpires, and the eruption may appear for the third time, *but with dimensions still farther augmented*, namely, as a large papule or tubercle." In an earlier work on syphilis he says, "A roseolous patch may be seen to develop papules; . . . and I have furthermore seen the small papule of lichen converted into the larger elevation called *tubercle* by sudden aggravation of the syphilitic fever, or from exposure to cold." It will be remembered that he was previously quoted as saying that "it is now (1871) well understood that *the influence of the vaso-motor nerves is involved in the production of roseolas;*" but it will be observed that for the syphilitic roseola Mr.

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[1] Concluded from page 400.

Wilson, in the foregoing statement, has assumed a pathological importance, which could not attach to it were it shown to be, possibly, due to the impression made upon the sympathetic nervous system by the syphilitic influence.

Characteristic prodromata are recognized by modern syphilographers as usually associated with the advent of constitutional syphilis in representative cases. They are numerous and varied, as follows: *general malaise*, *headache*, *rheumatoid pains*, irregular and chiefly nocturnal, *loss of appetite*, *indigestion*, *nausea*, *diarrhœa*, *giddiness*, *mental irritability*, *sleeplessness*, *great prostration*, *unnatural acceleration of breathing on slight exercise ;* in some cases *exacerbations of an intermitting fever*, temperature running up to 103° or 104° F., followed by profuse sweats, etc. These are among the most prominent of the prodromata cited by authors, and are grouped together under the general title of *the syphilitic fever.* This title is then applied, not simply to an acceleration of the pulse, elevation of temperature, etc., which is usually understood by the term fever, but any one of the foregoing conditions or symptoms, or any modification or combination of them, occurring about the time of the appearance of the syphilitic roseola, is claimed to merit this title. (Diday uses the more exact and appropriate term *syphilitic prodromes.*) It will then be readily seen that when authors speak of *syphilitic fever* as ushering in, or being associated with, the syphilitic roseola a very considerable degree of uncertainty may be claimed as to the dependence of such varied and common aberrations from the healthy state upon the development of syphilitic roseola. The intimate connection between syphilitic fever and roseola is *not*, however, universally accepted. On the contrary, Ricord says that the syphilitic roseola is *never* associated with fever except as an accidental coincidence, and that when fever is present *it is invariably due to some cause quite independent of the roseola.* Bassereau affirms that it was entirely absent in fifty-six out of the one hundred and ninety-nine cases critically observed by him, *but that it occurred in thirty-four out of fifty cases of the later papular eruption.* Coulson states that one third of the cases of syphilitic roseola are not preceded by *any* premonitory symptoms. McCarthy (quoted by Lancereaux) says that of sixty cases twenty-one had nocturnal cephalalgia alone, eleven cephalalgia and rheumatoid pains, and eight the latter alone, leaving twenty cases, or one third, occurring *absolutely without any premonition of any sort.* Bumstead says that syphilitic roseola is so free from febrile excitement, heat and pruritus, that the patient may not discover its presence except by accident. In one of the cases already presented to you the surprise of the patient on our discovery of the eruption will be recalled, and this, in my experience, has been the rule rather than the exception. Besides the records of observations covering a period of nearly two years in the Blackwell's Island Venereal Hospital, in 1851 and 1852, and during subsequent years, noting frequent cases in hospital and private practice, I have called especial attention to this matter in every case presenting at my clinic in this college for several years past; and I do not hesitate now to express my entire accordance with the views of M. Ricord, namely, that the syphilitic roseola is *never preceded by*, *nor associated with*, any fever, pain, or other prodromata that cannot readily and reasonably be accounted for through causes entirely independent of the approach or the presence of the roseola. For almost thirty years past Mr. Wilson has taught without qualification, and almost without contradiction, that syphilis, with roseola as its early exponent, was a mysterious, but a distinct element; that the organism in process of infection was gradually invaded by it, until nature, no longer able to endure its presence, concentrated all her forces, at a given stage, to expel it, and with the directness and urgency of a woman in labor, as he puts it in his climacteric in describing the syphilitic roseola, "*completes the triumph of the pressure from within, and is the sign that the poison is driven to the surface and is in process of expulsion.*"

"In the effort to understand the mysterious workings of syphilis in the human organism, analogical reasoning has naturally been resorted to. From the fact that there occurs an apparent period of rest in its early development, that in certain cases it is associated with varied disturbances of the nutritive functions and of the nervous and vascular systems, that preceding, during, or succeeding these disturbances an exanthematous eruption occurs, it has been the fashion, for want of a better place, to class it among the exanthematous fevers; and further, inasmuch as it has been, to a greater or less extent, an accepted conclusion that these diseases are the result of an effort of nature to get rid of the peccant material causing them, a like interpretation has been seized upon to explain the significance and value of the syphilitic roseola." But it may be urged that, if it is granted that the largest proportion of syphilitic roseolas are ushered in without marked constitutional disturbance, yet in two thirds of the cases reported by McCarthy and quoted by Lancereaux, pains in the head or bones, or both, were present. Was this a simple coincidence, and not the sign that the roseola was in process of development? If there was nothing else, at this stage of syphilitic disease, to account for the constitutional disturbance but the roseola, I should certainly look upon it as a coincidence, simply; first, because the fullest development of the roseola does not relieve the pains, and secondly, because the most profuse roseolas occur independently of them. But I think with a little care we may be able to find another and most important manifestation of syphilis present, with or soon following the advent of the roseola, and that is enlargement and induration of glands and groups of glands, to a greater or less degree, *through-*

out the entire lymphatic system, especially prominent and most readily recognized in the cervical and epitrochlear regions.[1] I pass my fingers along the posterior border of the sterno-cleido mastoid muscle of this patient, with the almost absolute certainty of finding well-marked enlargement of the group of lymphatic glands peculiar to this region, and not only do I find them, varying in size from a small shot to a pigeon's egg, but hard and movable, and also painless, as you may judge by the serene expression of countenance here preserved, under the by no means superficial examination which I am making. I find an enlarged gland, also, over each mastoid process, also in the post cervical region, at several points; also, in the epitrochlear space, just above the bend of the elbow. Here they are most valuable, in a diagnostic point of view, being rarely present before or absent after, the tenth or twelfth week succeeding inoculation of syphilis, whether any roseola can be detected or not. Sometimes only one gland is enlarged, sometimes it is found higher up, along the inner border of the biceps. I also call your attention to two other cases of syphilis, drawn from my service in Charity Hospital (which you may note as VI. and VII.), one in the fourth and the other in the sixth month of the disease, and this simply that you may examine them in regard to the matter of gland enlargements. In each you will find well marked and characteristic hyperplasia, not only of the inguinal glands but of those in the cervical and epitrochlear region. In case VI. you will find absence of enlargement of the epitrochlear gland on the right side, while it is present and as large as a marrowfat pea on the left. What I desire now particularly to show in these cases is the uniformity of the general gland enlargement, and this will be found to hold in all cases, to a greater or less degree. Where you do not find them after the third month of the disease it will be because the examination has been interfered with by excessive accumulation of adipose tissue, or because the examination has been inefficiently conducted. It may be still held as an open question as to whether this gland enlargement, remote from the point of inoculation, takes place by means of cell elements carried from the glands first affected directly to glands remote from the point of inoculation by channels not yet fully demonstrated, or whether they receive the syphilitic infection primarily through cells carried out by the blood current at the period of general infection or dissemination of the diseased germs. The fact that general gland enlargement is sometimes present before the appearance of the roseola is considered evidence in favor of the former view.[1] Of one thing, however, we are certain, namely, that at about the time, within a very few days, of the appearance of the roseola (sometimes before, sometimes after), this characteristic general gland hyperplasia takes place; that, in connection with this enlargement, a marked proportional increase of the white blood cells over the red has also been observed.[2] Now we have arrived at a point where, perhaps, we may be able to account for some of the so-called prodromata of the syphilitic roseola, without the necessity of considering them the result of nature's effort to expel the unknown element, in opposition to all known physiological laws, through the skin and mucous membranes. We have here a well-marked disturbance in a system of important functional use, one now recognized as occupying a place of acknowledged value among the hæmatopoietic organs; we have a condition which admits of explanation through known physiological processes, fully competent to cause all the nutritive, nervous, and vascular disturbances which have been recited under the title of *syphilitic fever*, or the prodromas of syphilitic roseola.

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[1] "Its occurrence in the lymphatic glands in the interior of the body has also been verified in post-mortem examinations by Von Barensprung and Virchow." (Beaumler, Ziemssen's Encyc., vol. iii., p. 182.) Also, "In the collection of the Hôpital de Lourcine, there are those preparations of women who died of intercurrent diseases, while affected with syphilitic sores on the vulva. In these preparations, not only the inguinal glands are swollen, but there is a hyperplastic enlargement of a number of glands above Poupart's ligament. In the second case, there occur in the fossæ iliacæ, along the blood-vessels, nine enlarged glands, arranged in three groups, one above the other, the uppermost at the origin of the art. hypogastrica. The enlargement of the glandulæ iliacæ had attained nearly the same degree as that of the gl. inguinalis, among which, one or two on each of the three preparations were distinguished, through their greater size, as the ones first attacked.' (Ibid., page 122. 1875.)

And now as to the cause of the roseola. We may accept it as localized hyperæmia, due, as Mr. Wilson says, "to the manner of distribution of the blood vessels of the skin," as in the common idiopathic roseola, the single patch of the eruption of which "represents the ramifications of a single arterial trunk," or "the small district of skin, the circulation of which may be governed by the ultimate divisions of one small nervous twig," a branch of the great sympathetic nervous system. Virchow states that on a section of the sympathetic nerve in the neck of an animal, "a state of hyperæmia ensues in the whole of that half of the head. The ears become dark red, *the vessels greatly dilated*, the conjunctiva and nasal mucous membrane turgidly injected; and this," he says, "may continue for days, or weeks, or months, without the least appreciable nutritive disturbance necessarily arising thereupon."[3]

From deductions based upon the electric experiments of Claude Bernard, upon a bisected sympathetic, he states that, "whether the relaxation of the muscular fibres of a vessel be produced directly by a paralysis of a nerve, or by an interruption of the nervous influence, or whether it be the indirect result of a previous stimulation, giving rise to exhaustion, in every case, we have to deal with a *kind of paralysis* of the walls of the vessel, and that the process is incorrectly designated *active* hyperæmia, inasmuch as the condition of the vessels is always a completely passive one." Belladonna is well known as a relaxing agent in nerve tissue notably seen in its effect upon the iris, and also in the production of an eruption in some respects similar to the roseola of syphilis. Mental emotions are also recognized as the cause of contraction of the calibre of the blood capillaries, producing pallor, and dilatation producing the blush. Also, in producing an eruption similar to the roseola of syphilis. I had, some time since, under my care a lady upon whom an eruption, in no way to be distinguished in appearance from a classical recent syphilitic roseola, was brought out upon the breast, back, and arms, chiefly, however, upon the neck, whenever she was subjected to any unusual mental excitement, and which remained distinct for several hours. And another case, at the present time (1879) under my care, when the passion of anger, or a sudden pleasure, or sense of mortification, will bring out a roseolous eruption, while a paroxysm of grief, no matter how severe, will have no such effect. We know that similar roseolas are initiated by digestive derangements and other causes that can be referred only to impressions made upon the sympathetic nervous system. Is it then remarkable that a cause dependent upon actual and more or less sudden changes in the blood proportions and quality should be found capable of producing equally important effects? May we not then reasonably infer from the foregoing, and in the absence of any other explanation of it, and of any proof to the contrary, that the syphilitic roseola is, like the simple roseolas, the result of an impression upon the sympathetic nervous system, a paresis of the vaso-motor nerves of the cutaneous envelope, caused by a special but limited paralyzing influence exerted upon the great sympathetic nerve, through positively recognized blood changes, immediately preceding, accompanying or following an initiation of the so-called secondary or active period of syphilis? This period, from a physiological point of view, I have ventured to term THE PERIOD OF GENERAL INFECTION AND SUBSEQUENT LOCALIZED CELL ACCUMULATION.

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[1] Beaumler says: "It is probable that the poison circulating in the blood may cause hyperplasia of the lymphatic glands directly, for sometimes we see these glands reacting to the poison before the skin or mucous membranes." (Zeimssen, vol. iii., page 181.)

[2] Section of these hyperplasic glands is found under the microscope to present the same closely packed cell accumulation which has been seen in immediate connection with the initial lesion of syphilis, and in lymphatic glands in direct connection with it.

[3] Physiology of Syphilitic Infection. Otis, 1872.

A PLEA FOR THE LANCET.

BY T. H. BUCKLER, M. D., BALTIMORE.

No one familiar with mortuary tables can have failed to observe the long list of deaths from pneumonia during the past winter in all the Atlantic cities. Unfortunately only the fatal cases are recorded, there being no note as to the number of pneumonias or of pleuro-pneumonias from amongst which this heavy necrology was drawn; nor is any hint given as to the relative value of different plans of treatment. The question naturally arises, Did this great mortality result, there being no percentage to guide the inquirer, from an unusually large number of cases, or from treating the average amount of pneumonias injudiciously, by the use of nutritives and stimulants alone? A prominent teacher of anatomy said to his class, a few years ago, that it would be useless for him to teach the surgical relations of the superficial veins of the arm, since the lancet, by the common consent of the profession at large, had been sheathed, never to be drawn again. It may be inferred, therefore, that the cases occurring during the past winter were conducted without venesection, and that the treatment consisted mainly in the use of stimulants, as advised by Brown of Edinburgh and the late Dr. Todd, who, at King's College, often gave his patients laboring under pneumonia as much as thirty-six ounces of brandy in twenty-four hours. No two dogmas have obstructed the progress of rational therapeutics half so much as the stimulating and contra-stimulating doctrines, the advocates of each method having waged a war of opinion against the other with the pertinacity of heroes; and, blinded by party zeal, neither faction was able to perceive that these doctrines, while seemingly opposed to each other and entirely antagonistic, would if applied contemporaneously in the same subjects accomplish in different ways identical and most salutary results. Mr. Brown-Séquard discovered and has taught beyond the power of contradiction that the stimulant to the nerves of respiration is the arrival of carbon at the lungs, and when, under febrile disintegration and metamorphosis of the tissues, carbon is sent to the lungs in great abundance, the respiration becomes exhaustingly exaggerated in frequency. The way to allay this exalted respiration, lessen its rapidity, and calm irritability of the pulmonary vaso-motor and branches of the par vagum nerves is to give brandy to the extent of producing and keeping up a condition of semi-inebriation, — to a child a full teaspoonful, and to an adult a tablespoonful, every two hours. At the same time free and successive bleedings should be adopted to drain the lungs, relieve pulmonary congestion, diminish vascular tension, put the circulation in a siphonic state, thereby removing pressure of blood from the morbidly dilated and disabled capillary vessels, thus enabling their coats to gather up and assume their elasticity and healthy power of contraction.

I saw at Washington, in consultation with three physicians, Commodore R., aged sixty-four. He labored under pneumonia attended with coma and stertor, and when waked muttering delirium took their place; the tongue was covered with a thick, dark, and dry coating; the pulse was frequent, and the respiration rapid; there was also great prostration, dorsal decubitus, with inability to turn on either side without assistance. Commodore R. had the leucophlegmatic cast of countenance, and his complexion was of a deep, dusky red, especially about the cheeks; his weight would probably have exceeded two hundred pounds. The entire three lobes of the right lung were in the second stage of red engorgement, without redux rattle or other sign of resolution; he coughed up moderate quantities of rust-colored sputa. Altogether it was one of the most unpromising cases of pneumonia I remember ever to have seen. The late Dr. Miller advised bleeding, one venesection having already been performed, with calomel and antimony in small doses, while his two other attendants, imbued with modern doctrines and well read in their profession, recommended stimulants. It was advised that the opposite views of both sides be conjointly adopted; that the commodore could not recover under the use of the lancet, sedatives, and alteratives only, neither could he get well under the exclusive use of nutritives and stimulants, but if both procedures, however opposed and contradictory they might seem, were faithfully carried out, the chances were that he would get well. He was largely bled again on that and the following day, took a tablespoonful of brandy with a cup of beef tea every two hours, and recovered without impediment or difficulty of any kind. The effect of the brandy in arresting metamorphosis of the tissues, and thereby preventing the arrival of carbon, the stimulant of respiration at the lungs, was noticeable by the marked reduction in the frequency of respiration.

If time and space permitted, there could be given a number of other cases which occurred during the past twenty years, in which the stimulating and contra-stimulating theories were conjointly and contemporaneously carried into practice with like favorable results. How is the lancet to be dispensed with in the uræmic convulsions of eclampsia and scarlatina, resulting in both instances from congestion of the kidneys? In what manner is the accumulation of blood in the vessels of the kidneys to be relieved and removed except by copious depletion? What other modes have modern therapeutists to suggest as a means of promptly restoring the healthy functions of kidneys deluged with blood, or of relieving the congestions which, without depletion, have for their sequences such formidable and fatal results? Are the convulsions symptomatic of kidney congestion to be ministered to by giving ether or chloroform, thereby stifling nature's cries for relief, augmenting the kidney congestion, and accelerating with certainty the fatal issue?

After treating, in a group, three children laboring under scarlatina, and losing two of them from uræmic convulsions, the third and last attacked, a child two years old, betraying like symptoms, coma and convulsions, was bled from the arm to the extent of four ounces; and eight hours having elapsed, three more ounces were taken with marked benefit to the coma with subsultus and threatened return of the convulsions. This child recovered without other bad symptoms or sequelæ of any kind. There is no condition in which patients bear and require such large losses of blood as in eclampsia.

Mrs. W., having suffered with œdema of the lower extremities before confinement with her third child, was seized soon after labor had begun with severe convulsions, for the relief of which a vein was opened in the arm, and some twenty-five ounces of blood were drawn. Shortly after the bleeding, the membranes, without being meddled with, were ruptured, the liquor amnii was evacuated, and the labor progressed rapidly without assistance of any sort, until the head began to press on the outer strait, when the convulsions again returned. The bandage was removed from the arm, and the vein allowed to bleed to the extent of fifteen ounces more, when the convulsions ceased, and a male child was born. Some tincture of nux vomica was given and repeated to restore tone to the nerves of the kidneys, which soon began to act freely, and the patient recovered without further untoward symptom of any sort. If bleeding in this class of cases is to be abandoned altogether, what restorative agency do advanced modern therapeutists propose to set up in its place? At the very time that Dr. Todd was giving brandy, as in his judgment the sole and only indispensable agent required in the treatment of pneumonia, M. Grisolle was experimenting as to the therapeutic efficacy of loss of blood in greater or less quantity, and each doubtless thought the other a fit subject for a mad-house. How fortunate it would have been if, abandoning preconceived ideas and prejudice, these honest searchers after truth could have become co-workers, and have put their seemingly antagonistic theories to the crucial test of applying them conjointly and contemporaneously in the same cases of pneumonia. If M. Grisolle, when bleeding his patients largely and successively, had given them a cup of beef tea and a tablespoonful of brandy every two hours, does any one doubt that his list of recoveries would have been much larger and longer?

A CASE OF FATAL ILEO-CÆCAL INTUSSUSCEPTION.

BY LOUIS STARR, M. D.,

Physician to the Episcopal Hospital, etc., Philadelphia.

John ——, fifteen years of age, a cabin-boy, was admitted to the Episcopal Hospital on February 22, 1876. He had a healthy family history, and, as far as he remembered, had always been perfectly well until February 14th, eight days before admission. At this date, without any assignable cause, he began to have paroxysms of severe pain in the abdomen. These paroxysms at first were of short duration, and occurred only at long intervals, but rapidly became so frequent and prolonged as totally to unfit him for duty; there was, however, no other indication of gastric or intestinal derangement, except loss of appetite. When he came into the hospital he was quite weak and anæmic, the intervals between the attacks of pain were short, and there was some tendency to nausea and occasional vomiting. The latter symptoms were quickly relieved by treatment; the pain, on the contrary, remained unabated until March 17th, when improvement began and continued for six or seven days, during which the patient was free from suffering, had a fair appetite, and was able to be up and about the ward. Afterwards the pain returned with renewed intensity, the intermissions growing shorter and shorter, and for the week preceding April 15th, when I first saw him, it had been almost constant, and subject to frequent exacerbations, when the agony was nearly unendurable.

On the morning of the 15th I found him in acute pain, screaming at the top of his voice, and tossing about in bed, with his hands pressed on his abdomen and his thighs drawn up. A hypodermic injection of one fourth of a grain of sulphate of morphia was given, and as soon as he became quiet a careful examination was made. There was considerable emaciation, and evidently great prostration. His lips were bloodless, his eyes sunken and surrounded by dark circles, and his skin was pale. His tongue was heavily coated, his breath foul; he had little appetite, according to the statement of his attendants, and even the small quantity of food taken augmented the pain. There was, though, no nausea or vomiting, and the bowels were moved once or twice daily, the stools being liquid, dark green in color, and at times containing small clots of blood. The abdomen was natural in shape; there was slight distributed tenderness on pressure, and rigidity of the abdominal muscles, but no tumor could be detected by either palpation or percussion. The pulse was feeble, about 120 per minute. The heart and lungs were healthy, the areas of hepatic and splenic dullness normal, and the urine was voided freely and was unaltered in composition. The treatment adopted was one sixth of a grain of sulphate of morphia hypodermically every six or eight hours, according to the degree of pain, two grains of sulphate of quinia thrice daily, one fluid ounce of sherry wine every four hours, and a liquid diet.

For the next three days, with the exception of increasing weakness and occasional tenesmus and pain and difficulty in urination, there was no change in the symptoms. At the end of this period a dose of castor-oil was administered; its operation was attended with severe tenesmus, and the evacuation was liquid, greenish, very offensive, and contained numerous small masses of blood-stained mucus and black granular matter resembling gunpowder.

On April 19th the patient was etherized, and the rectum and bladder examined with negative results, but in the upper portion of the left iliac region a small oblong tumor was discovered. Although the nature of this tumor was doubtful, *forced enemata* were ordered. The first injection was given on the afternoon of the 19th, several pints of tepid water being thrown gradually into the intestine through a flexible gum tube gently introduced as high as the sigmoid flexure. Very little returned except the fluid injected and a small quantity of bloody mucus and granular matter of the same character as that previously voided by stool. Nevertheless the pain and tenesmus were greatly lessened, and the patient passed a comfortable night, no anodyne being required.

The enemata were repeated daily until April 24th, bringing away small lumps of hardened fæces, with a diminishing proportion of bloody mucus. During this interval also the boy's general condition improved greatly, his tongue cleaned, his appetite returned, there was very little pain, and the tumor and the abdominal tenderness disappeared. The hypodermics of morphia were suspended, and the quinia was increased to two grains four times daily, administered in pill with an equal quantity of carbonate of iron; no alteration was made in the allowance of wine or in the quality of the food, though the amount of the latter was considerably augmented.

On the 24th and 25th he had several semi-solid evacuations without the aid of clysters. For the next four days the improvement continued, he was able to be out of bed for an hour or more each day, the stools were perfectly natural in form, color, and consistency, and he seemed to be convalescent. On April 30th there was a slight return of the pain and tenderness, and from this date up to May 15th his condition varied greatly, sometimes being quite comfortable, while at others he suffered enough to require a hypodermic of morphia. The pain was twisting in character, and occurred in irregular paroxysms, but as a rule was most intense immediately before and after defæcation, which act took place once or twice daily. It had no fixed seat, was always accompanied by rigidity of the abdominal muscles and borborygmi, and occasionally seemed to be excited by pressure upon the abdomen. Enemata were again resorted to with only trifling benefit.

On May 15th the pain became more continuous, and there was slight diarrhœa. The hypodermics of morphia and the quinine and iron were discontinued, and a pill containing one third of a grain of opium, half a grain of ipecacuanha, and one third of a grain of "blue mass" was ordered every four hours. Under this treatment the diarrhœa subsided, after lasting nearly two days, but returned in a more aggravated form and attended by tenesmus three days later, the relapse having been apparently brought about by eating an apple, obtained by stealth, some of the seeds and small, undigested portions of the fruit being found in one of the evacuations. The stools were liquid, dark yellow, very offensive, and numbered from six to eight in twenty-four hours. On May 22d the evacuations again contained blood and mucus; the patient at the same time became weaker, his pulse was more frequent, and the surface temperature was elevated.

On May 23d the diarrhœa suddenly ceased and vomiting set in, with great thirst, complete anorexia, increasing prostration, coolness of the surface, and almost constant, violent twisting pain and marked tenesmus. The left iliac and lumbar regions were moderately distended, and percussion in these situations was somewhat painful and dull; the rest of the abdomen was normal, except during the severer paroxysms of pain and straining, when it became knotted. The pills ordered on the 15th were stopped, milk with lime-water, beef tea, and wine were given in small doses and at short intervals, and a slight degree of narcotism was maintained by sulphate of morphia administered endermically. Throughout the 24th the vomiting continued, and as there had been no evacuation of the bowels an enema was given, bringing away a small number of scybala and a little bloody mucus. The boy's general condition grew steadily worse, though still hardly as bad as it had been in the early part of April.

When I saw him next day a great change had taken place: he was very pale, the nose and extremities were cold, the face was anxious, the body wasted, the pulse 130 a minute and very feeble, and the respiration hurried. His tongue was dry and red, there was intense thirst, and everything taken into the stomach was rejected. The abdomen was moderately distended, slightly tender to the touch, and tympanitic on percussion, save in the left iliac and lumbar regions, where there was decided dullness. The decubitus was left lateral, with the thighs drawn up, and while this position was maintained the pain, though constant, was not severe, but it became so as soon as he turned; at such times the recti muscles grew tense, and the intestines toward the right side bulged out and thrust forward the abdominal wall. There had been no evacuation of fæces or flatus by way of the anus. Digital examination of the rectum revealed nothing abnormal, and the urine, which had to be withdrawn by a catheter, was again tested and found to be healthy. As it was impossible to supply a sufficient amount of nourishment by the mouth, even tablespoonful doses of milk being retained for a short time only, directions were given to inject into the rectum two fluid ounces of beef tea every four hours, and to give a teaspoonful of milk and a teaspoonful of brandy in alternate doses every half hour; light poultices were also applied over the abdomen, and the influence of morphia was kept up as before.

On the 26th and 27th the prostration became even more marked, the pulse was almost imperceptible, the surface of the body felt cold to the hand, and the morning and evening temperature taken in the axilla ranged from 95.5° to 96° F. There was no discharge of fæces or flatus, and the pain and tenesmus were very great until the morning of the 27th; afterward the general sensibility seemed to be partially abolished, and both symptoms were less marked. The vomiting continued up to the date of death, early on May 28th, the matter ejected having no fæcal odor, and consisting chiefly of water, of which the patient drank large quantities, and which was returned almost as pure as when ingested.

A post-mortem examination was made seven hours after death. The body was greatly emaciated, and there was but slight rigor mortis. When the abdominal cavity was opened, the small intestine was found to be considerably distended, partly concealing the transverse and descending portions of the colon, which formed the sheath of an invagination involving the lower part of the ileum, the cæcum, and the ascending colon. The intussusception occupied a somewhat lower position in the abdomen than that usually held by the transverse colon, and the angle made by the junction of the latter and the descending colon was more obtuse than usual, so that the gut from the beginning of the inversion to the sigmoid flexure formed a curve occupying the upper half of the umbilical and the right borders of the left lumbar and iliac regions. No adhesions could be seen at the point of entrance of the ileum, and as far as the finger could be passed between the internal and middle layers the opposed serous surfaces were found to be perfectly free from them; nevertheless the intestine could not be retracted, even when considerable force was applied. The *intussuscipiens* or sheath of the volvulus — composed of the transverse colon and the upper part of the descending colon — was much corrugated, and when laid open the mucous membrane lining its interior was observed to be congested, thickened, and thrown into transverse folds resembling valvulæ conniventes. The *intussusceptum* or received portion — comprising the middle and internal layers — measured twelve inches in length, and was bent upon itself, the convexity looking downward and forward. The middle coat — formed of the inverted cæcum and ascending colon — was, like the sheath, much corrugated; its outer or mucous surface was greatly congested, the congestion increasing from above downward, and passing suddenly into an almost gangrenous condition at a point an inch and a half above the lower end, the line of demarkation extending obliquely around the intestine just below the ileo-cæcal valve, the thickened lips of which occupied a position upon the upper surface of the intussusceptum, coming in contact with the mucous membrane of the sheath. The internal layer — composed of the lower part of the ileum — was slightly twisted, but not sufficiently so completely to obliterate the canal, as a good-sized sound could be inserted through its entire length. The opposed serous surfaces of the middle and internal layers were congested, especially at the point of entrance of the ileum, but there were no adhesions until the seat of extreme congestion below the valve was reached; here the layers became intimately blended, though on making a vertical section they were readily traced, and what appeared to be the distorted vermiform appendix was seen in the bottom of the pouch of the inverted cæcum. The small intestine above the position of the inversion was considerably distended, and was partially filled with brownish-yellow liquid, while its mucous membrane was slate-gray in color, thickened, and congested; these changes were greatest in the ileum. The intestine below the invagination was collapsed; the descending colon contained a small quantity of coagulated blood, and its coats were much thickened; in the sigmoid flexure there were two collections of grayish-black material, — blood and hardened fæces, — forming together a mass as large as a hen's egg; the rectum was congested. The mucous membrane of the stomach presented the characteristics of chronic catarrh. There was no peritonitis, and the rest of the abdominal viscera, together with the heart and lungs, were perfectly healthy.

In this case the seat of the invagination, the probable exciting cause, the age of the patient, the long duration of the illness, and the total absence of fæcal vomiting, even when the other symptoms became so marked as to leave no doubt as to the diagnosis, are points worthy of consideration.

As determined by the post-mortem examination, the invagination belonged to that form of "inflammatory intussusception" known as *ileo-cæcal.* Of the four principal forms of intussusception, this one is most often met with, the relative frequency, for all ages, being, according to the statistics of Dr. William Brinton, ileo-cæcal fifty-six per cent., ileac, twenty-eight per cent., colic twelve per cent., and jejunal four per cent. This proportion, however, varies considerably with the age; for while ileo-cæcal inversion occurs even more frequently in childhood (especially during the first year, when it ranges as high as seventy per cent.), in adults the ileac and ileo-cæcal occur almost equally often, though both forms are less common than in early life.

Suitable conditions for the occurrence of intussusception are presented whenever paralysis of a limited portion of the intestine is associated with violent peristalsis in an adjoining higher section. These conditions may result from blows upon the abdomen, severe "fæcal stasis," distention by flatus, chronic diarrhœa, dysentery, typhoid or tubercular ulceration, tubercular peritonitis, and cancerous deposits in the coats of the intestine. Under these circumstances the paralyzed segment may become the sheath of the intussusception, but this portion is probably much more frequently inverted by the vigorously contracting bowel above, and carried with it into the normal intestine below, forming thus the middle layer, as in this way only can the fixation and the, at times, rapid growth of the invagination be accounted for, the first depending upon, and the second being greatly aided by, the presence of muscular contractility in the sheath. Independently of lesions, there is in the inequality which always exists in the calibre of the ileum and cæcum, and between the active peristalsis of the former and the sluggishness of the latter, a normal approximation to these conditions which renders ileo-cæcal inversion very apt to occur. Other causes are spasm of the muscular fibres of the ileo-cæcal valve, and in about five per cent. of the cases the presence of a polypus attached to the wall and extending into the lumen of the intestine. Finally, invagination is sometimes preceded by attacks in which the symptoms resemble those of the true lesion; sometimes, too, it occurs suddenly in the midst of apparent health. In the case under consideration the history shows throughout a tendency to intestinal derangements, probably brought about by the bad food and hardships incident to a life at sea. It is difficult to establish the nature of the primary attack more definitely than to refer it to this tendency. Neither can an absolute conclusion be reached in regard to the attack that followed toward the end of March. But considering the grave type of the general symptoms, the existence of a tumor in the left iliac region, the severe tenesmus, the character of the dejections, the inordinate action of a small dose (two fluid drachms) of castor-oil, and the effects of forced enemata, both as to the material brought away and the rapid improvement which followed their employment, there are some grounds for the belief that there was an obstruction, perhaps an invagination, at the lower part of the colon. The late discovery of the tumor being explained by the difficulty experienced in exploring the abdomen, and the absence of vomiting by the distance of the supposed lesion from the stomach. The symptoms that ushered in the last attack were unquestionably due to an inflammatory condition of the intestinal canal. The attack itself may, I think, be divided into a brief primary stage of slight febrile reaction and diarrhœa accompanied by the expulsion of masses of blood-stained mucus, and a secondary stage of longer duration in which there was complete obstruction and collapse ending in death.

Although invagination is particularly a disease of early childhood, it nevertheless happens sufficiently often in youth and adult life to prevent this case being considered exceptional in regard to age. The greater liability in childhood depends upon the mobility of the cæcum and ascending colon, the tendency to irregularity and want of coördination in the movements of different portions of the intestines, the susceptibility of the mucous membrane of the bowels to irritants, the frequency of intestinal disorders at this age, and also the disproportion between the length of the large intestine and the space which it occupies, — a disproportion which does not exist to the same extent in adults, and which causes folding of the intestine upon itself.

The whole course of the patient's illness, counting from February

14th, when the symptoms first appeared, to May 28th, the date of death, was very long, but the final attack, beginning on May 22d and ending on May 28th, corresponds very nearly in duration with the majority of primarily fatal intussusceptions.

Stercoraceous vomiting, though a frequent, is not an essential symptom of intussusception. Adopting the theory of Brinton, that fæcal vomiting is due to a reverse axial current in the contents of the intestine, and not to anti-peristalsis, it is apparent that while for the occurrence of this symptom at all the obstruction must be either in the large intestine or the lower part of the ileum, the date of its onset depends upon the distance of the obstruction, or starting-point of the reverse current, from the stomach, and upon the rapidity with which the bowel above becomes filled by ingestion and secretion. When, therefore, we consider the irritability of the patient's stomach, causing everything to be rejected almost as soon as swallowed, the short duration of the attack, the distant seat of the obstruction, and the comparatively empty condition of the small intestine as seen at the autopsy, the non-appearance of fæcal vomiting would seem more natural than the reverse.

In treating the patient my efforts were directed throughout the last two attacks to the accomplishment of three results: first, the removal of the obstruction or the reduction of the invagination by forced enemata of tepid water; second, the alleviation of pain and the reduction of the peristaltic movements by the free administration of opium; and, third, the maintenance of strength by the use of concentrated nourishment and alcoholic stimulants. In the interval the treatment was chiefly tonic and supporting. There was so much prostration during the last attack that the idea of operative interference was never seriously entertained.

RECENT PROGRESS IN THERAPEUTICS.[1]

BY ROBERT AMORY, M. D.

The Action of Cholagogues on the Dog. — A final report on the biliary secretion of the dog with reference to the action of cholagogues[2] to the British Medical Association, by Prof. William Rutherford and Messrs. Vignal and Dodds, is a continuation of the research, abstracts from which have been previously published in the JOURNAL.[3] This portion of the report on an important therapeutical subject is very voluminous, and a limited space will not permit us to give even an outline of the details of the work without detracting largely from its merits, and therefore we merely transcribe the summary of the third series of cholagogues as it is originally given by the authors, and refer our readers for the methods of experimentation to the numbers of the JOURNAL alluded to:

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[1] Concluded from page 412.

[2] British Medical Journal, December 21, 1878, January 11, 18, 25, February 1, 8, and 15, 1879.

[3] March 16, 1876, and March 22, 1877.

"(28.) Calabar bean stimulates the liver, but not powerfully, unless it be given in very large doses.

"(29.) Atropia-sulphate antagonizes the effect of calabar bean on the liver, and thereby reduces the hypersecretion of bile produced by that substance. It does not, however, arrest the secretion of bile, and when given alone does not notably affect it.

"(30.) Menispermin does not stimulate the liver. It slightly stimulates the intestinal glands.

"(31.) Baptisin is a hepatic, and also an intestinal stimulant of considerable power.

"(32.) Phytolaccin is a hepatic stimulant of considerable power. It also slightly stimulates the intestinal glands.

"(33.) Acetate of lead in large doses somewhat diminishes the secretion of bile, probably by direct action on the liver.

"(34.) Ammonium-phosphate is a moderately powerful stimulant of the liver. It does not stimulate the intestinal glands.

"(35.) Tannic acid does not affect the secretion of bile.

"(36.) Hydrastin is a moderately powerful hepatic stimulant, and a feeble intestinal stimulant.

"(37.) Juglandin is a moderately powerful hepatic, and a mild intestinal stimulant.

"(38.) Sodium-benzoate is a powerful hepatic stimulant. It is not an intestinal stimulant.

"(39.) Ammonium-benzoate stimulates the liver, but not so powerfully as the sodium-salt of benzoic acid. It does not stimulate the intestinal glands.

"(40.) Benzoic acid stimulates the liver, but owing to its insolubility its action is less rapid and much less powerful than that of its alkaline salts.

"(41.) Sodium-salicylate is a very powerful hepatic stimulant. It does not notably stimulate the intestinal glands.

"(42.) Sodium-chloride is a very feeble hepatic stimulant.

"(43.) Sodium-bicarbonate has scarcely any appreciable effect as a hepatic stimulant, even when given in very large doses.

"(44.) Potassium-bicarbonate feebly excites the liver, and that only when given in very large doses.

"(45.) Potassium-iodide has no notable effect on the biliary secretion.

"(46.) Sulphate of manganese does not excite the liver, though it is a powerful excitant of the intestinal glands.

"(47.) Morphia has no appreciable effect on the secretion of bile, and does not prevent the stimulating effect of such a substance as sodium-salicylate.

"(48.) Hyoscyamus does not notably affect the biliary secretion, and does not interfere with the stimulating effect of such a substance as sodium-salicylate.

"(49.) Pure diluted alcohol does not affect the biliary secretion.

"(50.) Jaborandi is a very feeble hepatic stimulant.

"All the above conclusions are based on experiments performed on the dog, and have no reference to any observations made on the human subject. Young dogs secrete, in proportion to their size, more bile than old dogs; we have, as far as possible, taken these points into consideration, and the summary of results above given contains the conclusions at which we have arrived.

"*Results of Experiments with Iridin and Euonymin on Man.* — Although we must leave to our medical brethen the task of testing on the human subject the effects of baptisin, sanguinarin, phytolaccin, hydrastin, etc., it will doubtless be of service if we here recount our experience of the use of iridin and euonymin. We have found four grains of iridin — made into a pill with a confection of roses, and taken at bed-time — a certain remedy for biliousness. It produces no disagreeable sensations, and, on awaking in the morning, the yellow tongue is found to be clean, and the headache and malaise gone. As iridin, though a powerful hepatic, is not a powerful intestinal stimulant, it is well to give in the morning an ordinary mild saline aperient, such as Pullna water or some other. But iridin, though an agreeable remedy at the time, has a somewhat depressing effect, and it probably should not be taken oftener than once a week or so. Euonymin is a hepatic stimulant in man as in the dog. Two grains of it, made into a pill with confection of roses, and taken at night, seem to be as efficient a remedy for biliousness as iridin. If the dose be not too great it leaves no depression. As it is a feeble intestinal stimulant, it is well to follow it in he morning by a dose of Pullna water or other saline aperient. I have been much struck with the success of euonymin in functional hepatic derangement in several persons who had tried nearly all the commonly used cholagogues with varying and often limited success. I have no doubt that, in consequence of our experiments, euonymin will come to be a universally employed hepatic stimulant.

"*Mode of Action of Hepatic Stimulants.* — But although we have definitely proved that a large number of substances stimulate the liver to secrete more bile, we do not profess to have absolutely shown in what manner they do this. It may be asked: (1.) Do they excite the mucous membrane of the duodenum or other part of the small intestine, and thereby induce reflex excitement of the liver? One would be readily disposed to entertain this idea from the fact that stimulation of the oral mucous membrane so readily induces secretion in the salivary glands; yet we are obliged to reject the idea that this likewise holds true of the liver, because such substances as gamboge and magnesium-sulphate powerfully irritate the intestinal mucous membrane, but do not in the least increase the secretion of bile. On the other hand, such substances as ipecacuan, sodium, and ammonium-benzoate powerfully excite the liver without inducing any notable excitement of the intestine. (2.) Do these substances stimulate the hepatic cells by merely increasing the stream of blood through the liver? Whatever be the state of the hepatic vessels during increase of the biliary secretion, it is quite certain that increased secretion of bile does not necessarily follow dilatation of the intestinal capillaries, the effect of which, if it be not carried to excess, may with reason be supposed to increase the stream of blood through the portal vein, and thence through the liver. But castor-oil greatly dilates the intestinal capillaries, yet the bile secretion does not rise in the least. (3.) We therefore believe that the effect of hepatic stimulants is to be assigned to a direct action of their molecules upon the hepatic cells or their nerves. The effect of physostigma and atropia rather points to an action on the latter, — in their instance, at all events, — as has been already indicated.[1] But we do not think it advisable at present to pursue this difficult subject, which, as far as we can see, is of little importance compared with knowing what does and does not stimulate the liver.

"It is particularly to be observed that all our experiments concern the influence of substances on the *bile-secreting* mechanism. The nature of our method has forbidden any observations on the *bile-expelling* mechanism. Seeing that the acid chyme, by irritating the duodenal mucous membrane, effects a reflex expulsion of bile, it may be that many substances which stimulate the duodenum have a similar effect. Yet we cannot but think that to bring about an *expulsion* of bile by muscular contraction of the gall-bladder and bile-ducts is, in all probability, a small thing compared with increasing the secretion of bile. One might expect that such powerful intestinal irritants as magnesium-sulphate and gamboge would be likely to bring about a reflex expulsion of bile; yet no one has attributed any cholagogue power to these. But, without attempting to reason out a question that can only be determined by experiment, we would merely add that we leave the investigation of the action of drugs on the *bile-expelling* mechanism to those who care to enter upon such an inquiry. We are satisfied to have shown that every substance supposed to be a cholagogue has, with the exception of calomel and manganese-sulphate, the power of exciting the *bile-secreting* mechanism; and, as our estimate of their powers, from an observation of the *bile secretion* only, closely agrees with observations on the human subject, where actions on the bile-secreting and on the bile-expelling mechanisms cannot be distinguished from one another, we cannot but infer that surely their actions on the human subject must be chiefly on the bile-secreting mechanism. With regard to calomel we must refer the reader to our criticism of its action at the close of the second series of experiments,[1] and we have already commented upon manganese-sulphate.

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[1] British Medical Journal, December 21, 1878.

"The term cholagogue is of necessity a vague one, and is applicable to any substance that increases the biliary flow, whether by augmenting the secretion of bile, or by exciting contraction in the gall-bladder and bile-ducts. We have therefore applied the more definite term *hepatic stimulant* to those substances which we have proved to increase the *secretion* of bile."

This long and able report concludes with a defensive argument in favor of the correctness of the mode of experimentation pursued by the committee, and strongly insists that the clinical experimentalist should try these drugs in man, and tell us whether or not he finds that they stimulate the human as well as the dog's liver, and also for what diseased states he finds the employment of this or that hepatic stimulant best adapted.

Belladonna in Intestinal Obstruction. — Drs. Kerr and May report[2] some very obstinate cases which other ordinary treatment had failed to relieve, but in which large doses of belladonna (one grain to two grains every hour) never failed of producing copious alvine evacuations, with relief to the tympanitis and vomiting, sometimes even when stercoraceous, accompanied by grave constitutional symptoms of collapse. A close examination of the reports of these cases certainly shows that all were of a desperate character of continued constipation. In one instance there had been no evacuation from the bowels for twelve days. Some of the patients were in imminent danger of death. One of these, an old man aged seventy years, who took six grains of the belladonna extract in seven hours, had dilatation of the pupil to the boundary of the arcus senilis, serious jactitation, and delirium, but in spite of these alarming symptoms rapidly recovered after several alvine discharges, and was out at his regular work in a fortnight. He had previously been subjected to the free opiate treatment, followed by castor-oil and warm enemata, with no relief, but rather an exaggeration of his symptoms. The abdomen was swollen and tympanitic, temperature 102° F., pulse 95; he had nausea, but no vomiting. In the evening there was increased rapidity of the pulse and general evidence of typhlitis; at this period the belladonna treatment was begun, and in twenty-four hours afterwards his convalescence was established. The relief in the other cases of colic was as remarkable.

Absorption and Elimination of Iron. — Hamburger,[3] experimenting on excretion of iron, found that in the normal condition of dogs the amount which leaves the body in urine and fæces is almost identical with that given with the food, provided this quantity be comparatively small (150 to 176.5 milligrammes in thirteen days), but that if iron be given in excess (600 to 800 milligrammes during the same period), about 22 to 27 milligrammes are retained in the system; of 608.4 milligrammes excreted in thirteen days only 12 milligrammes passed out by the urine. It also appears that the excess of iron eliminated with the urine cannot be detected by the ordinary reagents, such as ammonium-sulphide. Hamburger believes that the iron in the fæces is partly excreted by the mucous surface of the bowel.

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[1] JOURNAL, March 22, 1877.

[2] British Medical Journal, November 16, 1878, and August 31, 1879.

[3] Zeitschrift für phys. Chem. ii. 191, and Medical Times and Gazette, March 22, 1879.

M. A. Luton[1] states that he has successfully introduced subcutaneously from five to twenty drops of solution of dialyzed iron without causing the slightest local disturbance. The immediate effects of this appear to be a sensation of warmth, as often agreeable as otherwise, spreading over the whole person, a determination of blood to the countenance, an increased mental activity, etc., etc. He calls this condition a sort of ferruginous intoxication (*ivresse ferrique*), of which the persistence is somewhat dependent upon the size of the dose injected. The appetite in these cases is diminished rather than improved, but instead of the constipation which usually follows the administration of iron by the mouth the bowels are pleasantly relaxed; also, the urine is deeper in color than that normally excreted, and yet its amount is not materially larger. He compares the effects of the hypodermic use of iron with that which follows the transfusion of blood, and states that they are similar. Finally, he says that any good pharmacist can prepare dialyzed iron, and he is not interested in paying tribute to any special manufacturer.

AMERICAN GYNÆCOLOGICAL SOCIETY: FOURTH ANNUAL MEETING.

The fourth annual meeting of the American Gynæcological Society was held in the hall of the Johns Hopkins University, in Baltimore, September 17, 18, and 19, 1879.

Wednesday, September 17th. The president, Dr. T. G. Thomas, called the meeting to order at 9.30 o'clock. The roll-call showed the following Fellows to be present: Fordyce Barker, R. Battey, G. H. Bixby, N. Bozeman, S. C. Busey, J. Byrne, J. R. Chadwick, T. M. Drysdale, A. Dunlap, G. J. Engelmann, H. J. Garrigues, W. Goodell, W. T. Howard, J. V. Ingham, J. T. Johnson, G. Kimball, W. T. Lusk, P. F. Mundé, T. Reamy, J. C. Reeve, W. L. Richardson, J. Marion Sims, A. D. Sinclair, J. C. Skene, A. H. Smith, I. E. Taylor, T. G. Thomas, J. D. Trask, E. Van de Warker, J. P. White, and H. P. C. Wilson, — thirty-one, and Dr. J. L. Atlee, an honorary Fellow.

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[1] Mouvement médical, June 21, 1879.

A large number of prominent physicians who were present were made guests of the society.

Prof. W. T. Howard delivered an address of welcome to the city of Baltimore, and Professor Gilman, of the Johns Hopkins University, also welcomed the Fellows to that university, in which the meetings were to be held.

Dr. J. P. White read the first paper, taking for his subject Intra-Uterine Medication. The paper was strongly in favor of internal medication, and a variety of instruments applicable for such purposes were shown. Discussion on the paper was postponed until after the reading of the second paper, which was by Dr. Battey, on Intra-Uterine Medication by Iodized Phenol. This agent had been very extensively used by the writer, and always with great advantage. The strength of the application was to be graduated by the amount of the phenol used and the time it was allowed to be in contact with the diseased surface. No stenosis had ever been seen to follow its use.

A discussion followed, in which many of the Fellows participated. Dr. Sims believed there was a much shorter method of treatment, namely, that afforded by the use of the curette. He had recently seen several cases of cervical catarrh which had been curved by first dilating the cervix and then scraping away the fungoid granulations, and subsequently cauterizing the denuded surface with the actual cautery. — This method of treatment was also favored by Dr. Taylor, who, however, used instead of the actual cautery an iron only slightly heated and applied rapidly over the seat of the disease. — Dr. Howard thought that the great difficulty in treating cases of this kind was in not sufficiently making out a correct diagnosis of just what the trouble within the uterus is before beginning the treatment. It was especially necessary first to get rid of all uterine flexions. The use of strong acids or nitrate of silver was altogether too dangerous. — Dr. Barker had used cones of iodoform after first dilating the cervix with sea-tangle. — Dr. Byrne believed that a perfectly healthy uterus would not tolerate any liquid within its cavity. Nitrate of silver in solution or chloride of zinc he thought were most dangerous agents, and should never under any circumstances be applied within the uterus. The further the departure from a healthy uterus we are dealing with, the greater will the uterus tolerate internal medication. — Dr. Mundé had seen three serious attacks of colic follow the injection of a very small amount of fluid within the uterus. — Dr. Goodell believed that great care should be used in the introduction of sponge tents. He always preferred to accomplish what dilatation was needed with one introduction of the tents, and thought that the best results were attained by using a small sponge tent surrounded with one or more laminaria tents. He had used the phenol recommended by Dr. Battey, but in combination with hydrate of chloral. He also thought that the pain often experienced by women as the probe or sound passes the internal os is occasioned by the presence at that point of a fissure or tender cicatrix. Such cases are often cured by dilatation at that point. — Dr. Bozeman thought that more attention should be paid to the influence of uterine misplacement in producing or keeping up of uterine disease. — Dr. Reamy had entirely given up the use of sponge tents, using instead laminaria tents, which were far less likely to injure the mucous membrane. He believed that frequently the simple dilatation of the cervix would effect a cure — Dr. Thomas was, as a rule, entirely opposed to intra-uterine medication. He considered that such applications made within the os internum were very dangerous, as well as generally useless. There is usually some cause for the catarrhal condition, and it is not infrequently due to a flexion or misplacement. In cases where fungosities exist, the curette is of great value. In many cases a lacerated cervix is the cause of the difficulty, while in others there are constitutional causes to be removed. In cases of true idiopathic catarrh, which are always very rare, intra-uterine medication is of value. He believed that the pain experienced in some instances when the sound passes the internal os was due to a spasm, and not to the causes alluded to by Dr. Goodell.

Drs. Skene and Bozeman were appointed an auditing committee, and Drs. Barker, Taylor, and Richardson a committe on nomination.

AFTERNOON SESSION. The first paper, which was read by the secretary in the absence of the writer, Dr. Jenks, was on the Treatment of Puerperal Septicæmia by Intra-Uterine Injections. The discussion was postponed until after Dr. Chadwick had read a paper on Idiopathic Septicæmia in Gynæcological Practice, and Dr. Sinclair had reported a case of Puerperal Septicæmia.

These papers were all in favor of the use of intra-uterine injections as a powerful agent in the treatment of septicæmia arising either in gynæcological or obstetric practice. Dr. Chadwick especially favored the use of permanganate of potash, owing to the fact of its color serving as a guide to how long the injection should be continued, — a solution of it returning with a dirty yellow color so long as there remains behind any putrid matter to be washed out. — Dr. Sinclair alluded to the treatment of twenty-one cases by this method, of which twelve had recovered. — Dr. Skene thought that if more care were taken at the time of the delivery there would be less need of this kind of practice in the subsequent convalescence. — Dr. Engelmann had seen bad results follow the use of carbolic acid in these injections. — Dr. Barker believed that such practice was of value in a very small number of cases. He had seen death result from its use in five cases. — Dr. Howard believed thoroughly in the constant use of vaginal douches during convalescence, and that intra-uterine injections should be resorted to whenever there were the slightest symptoms of a septic absorption. — Dr. Goodell did not believe in this prophylactic method of treatment, which he considered more apt to do harm than good, but as a curative measure he believed it was invaluable. He thought that the cases which had been reported elsewhere as illustrative of the poisonous effect of carbolic acid were due to the fact that carbolic acid does not very easily dissolve in water. He therefore favored the use of the permanganate of potash; or if carbolic acid was used, it should be in a solution of glycerine. He also advised the thorough washing of the external genitals with a disinfectant after the delivery is effected. He would also recommend the delivery of the placenta with the woman on her back, as by so doing there was less likelihood of air entering the uterine sinuses. — Dr. Erick spoke highly of the use of suppositories of bromic acid in the vagina as a disinfectant. — Dr. Thomas believed strongly in the use of intra-uterine injections in these cases, combined with wet sheets so as to prevent the thermometer from rising over 100° F., and the use of quinine and stimulants.

THURSDAY, September 18th. The first paper was by Dr. Busey, and was entitled A Contribution to the Pathology of the Cicatrices of Pregnancy. He commenced with a review of the literature of the subject, in which is presented the views of Credé, Schultze, and Hecker, which relate especially to the value of these scar-like streaks and spots as a sign of existing or previous pregnancies. Then followed a discussion of the anatomy of the striæ and the nature of the lesion giving rise to these appearances. The investigations of Kustner, accompanied with photographic illustrations of sections of striæ prepared by him, were presented, together with original microscopical examinations of the normal integument and of the striæ. From comparison of these histological appearances, Dr. Busey reached the conclusion that the striæ are not caused by rupture of the Malpighian layer, as generally believed, nor by separation of the fibres of any of the layers of the skin. He then discussed the several methods of vesicle formations, and concluded that the striæ of pregnancy do not constitute any form or stage of vesiculation, but that the hydrophic condition, not infrequently observed, is to be ascribed to the transudation of fluid into the lymph spaces of the connective tissue. In conclusion, he maintained that the striæ of pregnancy are localized atrophies of all the constituent layers of the integument, with compression and partial obliteration of the lymph spaces. From a review of the clinical aspects of the several forms of striæ, he was forced to exclude distention as the only factor of causation, and to insist that their appearance is the result of the usual changes occurring during pregnancy, and their absence the expression of some special condition or peculiarity of organization which presents a successful resistance to the usual activities and changes incident to utero-gestation.

Dr. Mundé then read a paper on Prolapse of the Ovary, in which he gave a carefully prepared and exhaustive account of this affection, which heretofore has been so imperfectly described by medical writers.

At the conclusion of this paper, the president, Dr. Thomas, delivered the annual address, which was devoted to a consideration of the gynæcology of the future and its relations to surgery. It is impossible in the brief space allowed for this report to give even an abstract of this admirable address. It was a demand for the recognition from the general practitioner of what gynæcology and obstetrics had done, and an expression of belief that the future would still further demonstrate the important place to which gynæcological surgery was entitled as a special branch of surgery.

A vote of thanks to the president having been passed, the discussion began on Dr. Mundé's paper. Dr. Battey disagreed with the writer in some of his statements, and did not believe that a prolapse of the ovary should in any way be connected with the subsequent existence of a diseased condition of that organ. — The secretary read an account of a case sent by Dr. Spencer Wells, in which he had performed Battey's operation, removing both ovaries, with great relief to the patient. — Dr. Skene thought that stress enough had not been laid upon the value of the pain which persists for a long time after defæcation as a symptom of a prolapsed ovary.

AFTERNOON SESSION. Dr. Barker believed that constipation was a powerful agent, not only in causing this displacement, but also in keeping the organ displaced. He believed that very little good was to be obtained from the use of pessaries for effecting a replacement of the ovary. — Dr. Busey believed that the structural changes observed in these cases were the result, and not the cause, of the displacements. — Dr. Chadwick had seen marked relief, in several cases, follow the use of hot rectal douches.

Dr. Byrne gave an account of a new method of performing the operation of kolpo-cystotomy by means of the galvano-cautery, and showed an instrument he had devised for holding the wall of the bladder in position while making the vesico-vaginal fistula. He claimed that the operation was to be performed as a curative measure in all serious cases of cystitis.

Dr. Sinclair read a paper on the measurements of the uterine cavity in childbed, and gave the measurements in one hundred and eight cases. The object of the reader was to present a series of figures of great value as bearing on the subject of involution following delivery. The average length of the uterine cavity in the one hundred and eight cases was 3.02 inches, the uterus in primiparæ averaging 2.94 inches and that of multiparæ 3.21 inches. The measurements were usually made during the third week.

FRIDAY MORNING, September 20th. The annual business meeting was held at nine o'clock, with closed doors. The report of the nominating committee was made, in which regret was expressed that Dr. T. G. Thomas had refused to allow his name to be used for a renomination. The following officers were elected: President, Dr. J. Marion Sims, New York. Vice-Presidents, Dr. W. T. Howard, Baltimore, and Dr. Robert Battey, Georgia. Council, Dr. W. Goodell, of Philadelphia, Dr. E. W. Jenks, of Chicago, Dr. A. D. Sinclair, of Boston, and Dr. A. J. C. Skene, of Brooklyn. Secretary, Dr. J. R. Chadwick, Boston. Treasurer, Dr. P. F. Mundé, of New York. The following were elected Fellows of the society: Dr. John Scott, of San Francisco, Dr. Edward L. Duer, of Philadelphia, Dr. R. Stansbury Sutton, of Pittsburgh, and Dr. J. W. Underhill, of Cincinnati.

It was voted that the next meeting of the society be held in Cincinnati, and the time was fixed for the first Wednesday in September.

The doors were then opened, and the reading and discussion of papers began with a paper by Dr. I. E. Taylor, on the Early Application of the Forceps in the First Stage of Natural Labor. In it the writer strongly advocated the application of the forceps within the uterine cavity whenever there were symptoms of an approaching tedious labor. — Dr. Howard believed that great advantage could be gained by the use of hot-water vaginal injection, and that when the os uteri was dilated so as to admit of version being performed that operation was preferable to the introduction of the forceps. — Dr. Reamy entirely dissented from the views held by Dr. Taylor.

Dr. Goodell read a paper based on clinical notes on the Hypertrophic Elongation of the Cervix Uteri, in which the writer favored, under certain circumstances, the amputation of the cervix with the actual cautery. — Drs. Reeve, Dunlap, Taylor, and Skene took part in the discussion, the last-named gentleman believing that oftentimes a great improvement followed a slight removal of the cervix, and thus the presence of a large granulating surface could be avoided.

Dr. Johnson read a paper on Mismanaged Labor as the Source of much

Gynecological Practice. The paper was a well prepared claim for a greater study of obstetrics as a means of avoiding the necessity of so much subsequent gynecological practice.

AFTERNOON SESSION. After the discussion of Dr. Johnson's paper, Dr. Reeve read the report of a Case of Extra-Uterine Pregnancy. After some further discussion and some farewell remarks of the retiring president, the society adjourned to meet at Cincinnati.

BRYANT'S SURGERY.[1]

IT is rare that a work undergoes so much alteration as this has done in passing from the first to the second edition, but this change represents that effected by three English editions. The chief value of this particular surgery lay originally in its very practical character, being largely a record of the author's experience, which in a hospital like Guy's was of course of just the character to illustrate a text-book. This feature has been preserved, while the arrangements of the subjects and the literary part of the work have undergone great improvements. There was room for it, but the want has been very satisfactorily filled. Another valuable feature is the beautiful illustrations, which are a model of what ought to be, but unfortunately rarely *is*, in every medical work. The author has evidently discarded the old pictures which have done duty for many generations, and has had an entirely new set made for his own special purposes, and they demonstrate with great clearness the points they are intended to show. These advantages make it valuable and interesting to the practitioner as well as the student.

DR. LUCAS-CHAMPIONNIÈRE ON TREPHINING.[2]

THE author of this very interesting little volume has undertaken to deduce practical surgical indications from physiological and pathological studies of the functions of the brain. It must, we think, be admitted that interesting as experiments on the localization of functions may be, they so far have been barren of results. They have led to many ingenious diagnoses, and autopsies have been doubly interesting, but it may be questioned whether the sick have been benefited. Dr. Lucas-Championnière has endeavored to show that motor symptoms following injuries to the brain may be faithful guides to the surgeon who would trephine if he knew where to do it. Most readers, we imagine, after finishing the preface, would be very skeptical, as we were, whether the author can give us the light he leads us to hope for; but we think many will admit that his facts and conclusions deserve very serious consideration. Dr. Lucas-Championnière is a strong believer in the trephine, which had at one time in France fallen into almost total disuse. He experiences difficulty in giving rules for the propriety of the operation which shall apply to all cases, but he admits only one absolute contra-indication, namely, the fact of the skull's being so "smashed" that interference is necessarily useless.

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[1] *A Manual for the Practice of Surgery.* By THOMAS BRYANT, F. R. C. S., Surgeon to and Lecturer in Surgery at Guy's Hospital, etc. Second American from the third revised and enlarged English edition. Philadelphia: Henry C. Lea. 1879.

[2] *La Trépanation guidé par les Localisations cérébrales.* Par le DR. JUST LUCAS-CHAMPIONNIERE. Paris: V. A. Delahaye et Cie. 1878.

The essential part of the work, however, is that relating to localization, especially of motion and of speech. The author places the latter function in Broca's celebrated convolution on the left, a conclusion which we have always thought hasty. He records a number of clinical observations, many of which are from the war of secession, showing the position of the motor centres. These are chiefly in the convolutions bounding the fissure of Rolando, which, following the author's nomenclature, we will call the ascending frontal and the ascending parietal convolutions. Dr. Lucas-Championnière recommends that the trephine be applied as follows, according to the paralysis: for paralysis of the leg, over the top of the ascending parietal; of the arm and leg, over the top of both convolutions; of the arm alone, over the middle of the ascending frontal; of the arm, with aphasia, over the lower third of the ascending frontal and the root of the third convolution; facial paralysis, over the lower third of the ascending frontal and the root of the second frontal; aphasia, over the root of the third frontal. It will be noticed that there is some vagueness in the latter cases, and it is of course possible that an effusion of blood may gravitate so as to give rise to symptoms indicating a region other than the one where the injury occurred. The author, however, is so convinced of the comparative harmlessness of the operation, especially with antiseptic precautions, that he advises the reapplication of the trephine (apparently again and again) should the search at first be unsuccessful. Directions are given for finding the fissure of Rolando, which, if the author's views come into vogue, will be an important point in topographical anatomy.

To conclude: while we cannot shake off a suspicion that the author is rather too much convinced of the accuracy of symptoms as guides to the locality of the injury, we congratulate him on opening a new and promising field of research. If other surgeons study the question as conscientiously as he has, we may hope that some parts of it, at least, will be definitely settled.

MEMORANDA ON POISONS.[1]

These memoranda were originally intended to refresh the memory of the practitioner on the subject of toxicology, and to show him at a glance the treatment to be adopted in any case of poisoning to which he might be called. The later editions have been enlarged somewhat by the editor, with the object of making it useful to the student as well as the physician. It is not a book, however, which we can recommend either as a text-book or book of reference. It treats the subject too briefly (necessarily in a book so small as this) to be of any value as a text-book, while its only claim to favorable mention as a book of reference depends upon its small size, on account of which one might perhaps expect to look up any desired information more readily than in the larger works on toxicology. But these latter are so well indexed, and treat of the various poisons so systematically and uniformly, that they can be consulted full as quickly, and much more satisfactorily, than a book like the present one.

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[1] *Memoranda on Poisons.* By Thomas Hawkes Tanner, M. D., F. L. S. Fourth American from the last London enlarged and revised edition. Philadelphia: Lindsay and Blakiston. 1879.

THE EXPERIMENT AT ZURICH.

We print in another column a letter from Prof. Edmund Rose, of Zurich giving in a brief but succinct manner the present standing of the educational problem in that university. It has been obtained in answer to numerous communications we have received this summer upon this subject, and can be regarded as a fair statement of the case from a source which we have been told inclines favorably towards the aspirations of female students. Accompanying this communication are a number of graduation theses, of very excellent quality, and catalogues of the university for 1873 and 1879. In the former of these we find a list of eighty-eight female students, eighty of whom are Russians; in the latter there are but nine ladies' names, five of them being from this neighborhood, and one only of the remaining four being a native of Switzerland.

Although the statement made by the *Koelnische Zeitung* proves to have been incorrect, it reflects the impression received by the European press in consequence of recent action of the university, rendered necessary by complications arising from this attempt at coeducation. One could hardly ask for more satisfactory proof of the impropriety of such experiments than the experience of this school. Except in Russia, where other than professional influences appear to be at work, there is evidently no demand in Europe for female physicians. Taking the list of the present year as a sample, it is evident that the question is connected, not with professional wants, but with the present movement favoring the general advancement of the female sex, that country most intimately connected with the cause representing the majority of students. As six years ago it was the nihilists, so at the present time the "advanced thinkers" have their delegation; at still another period it was the "German noblemen."

In view of these experiences we can scarcely believe that Harvard will be persuaded to make a similar experiment. We have already attempted to show that opportunities for all earnest young women who wish to gain their living by the practice of medicine are amply provided. The opening of a school at Harvard would of necessity be followed by a collapse of one or more of the schools for women; and in fact we have been informed that this is precisely what has been contemplated, — that the New York school would close its doors on the day that permission is given to women to study at Harvard. It is not, then, to "supply a want" that this university is asked to admit the other sex. Indeed, unless some such arrangement as the one suggested were made, the facilities for study would become as dangerously great as they are now for men.

Let the ladies by all means stick to their own schools; let them show a capacity for teaching as well as learning, for building up a medical community by their own exertions without unusual or extraneous support. In any such effort we should have an experiment of reliable and permanent value which would settle the question definitely, and one which would win the cordial approval of even the most skeptical.

MEDICAL NOTES.

— The New Hampshire Medical Society held its eighth semi-annual meeting at Hanover on September 17th and 18th. The members were welcomed by Professor Frost, of the New Hampshire Medical College. Professor Hubbard read a paper upon the Life and Character of Dr. Nathan Smith. Professor Dunster gave a lecture upon the Discovery of Anæsthesia, and Professor Home gave a fine exhibition of microscopical preparations. In the evening there were receptions at the houses of Mrs. Dixi Crosby, Mrs. A. B. Crosby, and Professor Frost.

— There has been much agitation in this city recently of the question of intramural burials. The board of health advise that no further interments be permitted in any of the old grounds of the city. This is opposed by the few remaining members of certain families owning tombs in these cemeteries, and by that portion of the public who see in this the first step towards utilizing the grounds for building purposes. The number of annual burials is so exceedingly small, and has been for so many years, that we can see no harm in allowing the present law to stand as it is. A residence of nearly twenty years in a house adjoining one of these grounds, the bedroom window actually opening on to it, has convinced us that the sanitary advantages of these old air spaces far outweigh any theoretical dangers arising from crumbling vaults. During all this period we hardly remember to have seen more than one or two funerals. The few who wish to be laid beside their relatives should be allowed to depart in peace.

— At a post-mortem examination in a lunatic asylum in Saxony a needle was found imbedded in the heart. It had passed through the posterior wall of the left ventricle. The patient, a man of twenty-five, had died of peritonitis. Previous to his last illness he had always felt well, and never complained of any cardiac trouble. How the needle entered his heart was undiscovered.

— A woman, wife of a laborer at Kettwig, Germany, recently gave birth to *five* children — four boys and a girl — at one birth. Although very small they were well formed, but lived only a few hours. The mother made a good recovery.

— The new catalogue of the library of the Faculty of Medicine in Paris has been recently completed, and the books have been arranged in order on the shelves. The library contains from 55,000 to 59,000 volumes, more than 20,000 of which had been lying, covered with dust, in obscure places.

— Sir Thomas Maclean, F. R. S., long known as the astronomer royal, recently died at the Cape of Good Hope. He was formerly a physician, but abandoned the profession in order to make important astronomical investigations in Southern Africa. He consequently was soon after appointed astronomer royal.

— A faculty of medicine in connection with the Neva University, Russia, is to be established at Odessa.

— The following is Dr. Kerr's formula for a preparation of red cinchona, which he recommends as of great service in dipsomania: "Add one ounce of the powdered bark to one pint of water, acidulated with one hundred minims of dilute hydrochloric acid. Boil for ten minutes, and strain when cold. Pour water over the contents of the strainer until the product measures one pint. Dose, two ounces every three hours, gradually lessening quantity and frequency of the dose after the first day, until in seven days it is reduced to a teaspoonful three times daily. The most reliable temporary alleviation of the craving for alcohol that Dr. Kerr has ever witnessed followed the use of a full emetic dose of ipecacuanha.

— Dr. Braun, of Vienna, has successfully used the muriate of pilocarpine in eclampsia. Dose, three centigrammes administered hypodermically.

— Sir William Jenner has been forced by an attack of whooping-cough to abandon his practice and leave London. He did so in order that he might not spread the disease.

NEW YORK.

— The fourth annual meeting of the American Academy of Medicine was held at the building of the New York Academy of Medicine on Tuesday and Wednesday, September 16th and 17th. On the evening of the 16th a large audience assembled to hear the address of the president, Louis H. Steiner, A. M., M. D., of Frederick, Maryland, who had selected as his subject The Preparatory Education most needed by the Medical Student. This was an admirable effort, characterized by clearness and elegance of diction, and in it he made a strong and eloquent plea for the necessity of a thorough academic education as the only sure foundation on which to build. Believing the ancient classics to furnish the best possible training that could be given the youthful mind, he decried the substitution of other studies for these, while at the same time he urged the importance of logic and rhetoric in preparing the student to make sound deductions from his observations, and express his opinions in the clearest and most attractive manner. Therefore, the best preparatory education for the medical student was the regular old college curriculum; and a great part of the address was devoted to showing from various standpoints why this was the case. The fact, said he, that so many hundreds of students were admitted to the medical colleges without the slightest attention being paid to their previous training should be a source of great regret to the profession, since the evil effects of such a system were only too apparent. Young men who could not even speak or write the English language correctly were received as matriculants in the schools, rushed through the course at railroad speed, and then permitted to appear with their degree of M. D., and claim the right to equality with the most experienced and learned members of the profession. Since ancient times theology, law, and medicine had been considered the three strictly learned professions, and it was entirely wrong that that of medicine should be degraded by a system which permits untrained men to gain so easy access to its ranks. Probably the only remedy for it was to create a strong public opinion against it, which should make young men ashamed to present themselves as candidates for admission to the profession until they had received the requisite preliminary education. They ought to be made to understand that it would be impossible for them to gain honorable distinction as physicians unless they had first laid such a foundation for their future career, because the successful practitioner of the present age required something more than a superficial knowledge of medicine and surgery. The object of military and naval academies was not merely to teach tactics and the other details of the art of warfare, but also to develop analytical minds, so that when a commander found himself in any difficult emergency he could forget books and professors, and make and execute his own plans instantly upon the spot. So the practicing physician often found himself face to face with serious and unexpected complications, and unless his mind had received the proper scholastic training he would be very likely to fail in devising such measures as would render him master of the situation.

It will, perhaps, be remembered that the American Academy of Medicine was organized at Philadelphia in 1876, at the time of the meeting of the International Medical Congress there, and that the venerable Dr. Traill Green, of Eastern Pennsylvania, was its first president. His successor was Prof. Frank H. Hamilton, of New York, whose term expired last year, when Dr. Steiner was elected. The secretary of the Academy is Dr. Richard J. Dunglison, of Philadelphia.

— The alterations in the building of the New York Academy of Medicine, which give it, among other improvements, a large, commodious, and well-ventilated hall for meetings, are now completed, but the formal opening has not yet taken place.

— At the recent meeting of the Social Science Association at Saratoga, President Barnard, of Columbia College, offered resolutions in favor of the adoption in the United States of the metric system of weights and measures, and among the papers read were one on Sewerage in Small Towns, by George E. Waring, Jr., and one on the Tenement-Houses of New York, by Dr. Charles P. Russell, formerly of the Metropolitan Board of Health.

— Some little excitement was lately occasioned in a remote portion of Jersey City by the reported occurrence of two or three cases of "spotted fever," but the health authorities expressed the opinion that the patients were really suffering from typho-malarial fever.

— Ever since last winter, at the time there were such exaggerated reports about the disease, pleuro-pneumonia has prevailed to a small extent among the cows of the stables in New York, but General Patrick, the state commissioner, Professor Law, and the veterinary surgeon, Dr. James Hopkins, have kept a constant supervision over the stables, and have prevented the further spread of the disease by promptly killing all infected animals. Of late there has been a slight increase in the number of diseased cows discovered. Previous to last month three or four of them were killed every week, but during the last few weeks about half a dozen have been dispatched each week at the offal dock of the health department on the North River. The work of General Patrick and his associates has been of much importance to the public in insuring, to a certain extent at least, a supply of good milk, while the knowledge gained from many autopsies which have been made, and the prolonged study of the disease by the city health officers and other medical men of New York, have led to the discovery of valuable information, which can probably be used to great advantage hereafter in dealing with the disease. Dr. Day, the sanitary superintendent, who has taken great interest in the work, states that there is no cause to fear a spread of the affection, since the comparatively few sick cows found have been scattered about the city, so that the disease is not sufficiently concentrated in any one spot where it could find a chance to develop rapidly.

ST. LOUIS.

— The yellow fever outlook in St. Louis remains unchanged, occasional cases occurring among those coming from the South, which are sent to Quarantine Hospital; at present there are four cases of yellow fever there.

— In Memphis they are making great efforts to disinfect. Privy vaults are being covered with lime preparatory to emptying them and filling them with earth when cold weather sets in. Some two hundred barrels of lime and five thousand gallons of a solution of copperas are used daily by the Tennessee State Board of Health. Nurses when sent out are furnished with a package of sulphate of copper and a package of sulphate of zinc. The discharges of the patient are disinfected with the first, and when death occurs the bodies are immediately washed with a solution of the second, wrapped in a sheet saturated with this solution, and buried.

— At the suggestion of the State Board of Health they are about to place a cordon of mounted men about Memphis, to prevent all egress or ingress of those not furnished with passes.

— Assistant Surgeon L. J. Draper, of the United States navy, who was sent to St. Louis by the government to examine boys applying for the navy, died in that city August 30th, after a brief illness, attended by Dr. Green, United States navy, and Dr. Prewitt of St. Louis. The history pointed to a peritonitis some two years ago, since which time he had never been free from colicky pains. The early part of his illness was marked by constipation. A stomach tube was introduced through the rectum, and injections were given resulting in slight passages, and he was thought to be improving; but upon the 28th of August bloody stools were passed, and the diagnosis of stricture of the small intestines was made. The intestines in the umbilical and hypogastric regions could be plainly felt. Upon post-mortem examination traces of an old peritonitis were found; the viscera were matted together, especially the small intestines, and about the junction of the ileum and jejunum an inflammatory band had formed constricting the gut, and was probably the chief cause of death, although the matting together of the bowels must have seriously interfered with peristaltic action, and thus would have produced chronic constipation.

Dr. Draper's place has been filled by Dr. Green, of the United States navy. Dr. Green does not find much difference between the applicants here and on the coast. There is a larger percentage accepted among boys coming from the country than among those from the cities. Here two out of three have been rejected. Among the most frequent causes of rejection were varicocele and insufficient development.

PROFESSOR ROSE AND ZURICH FEMALE STUDENTS.[1]

Dear Sir, — In answer to the questions in your letter, I must state that Miss Smith, of America, has been my sub-assistant during the past summer (1879), and that the story told in the published letter (in the *Boston Daily Advertiser*) is passably correct.

We have always female students, but those from Russia have nearly all disappeared since the well-known ukase, much to our satisfaction; as their number was very large we do not consider it a misfortune.

The communication in the *Koelnische Zeitung* is based probably on the fact that at first only very earnest and industrious ladies entered, but later many coquettish and hysterical ones, who have caused a strong prejudice against the whole question. At present the female students, and especially Miss Smith, are again much more industrious and earnest in their studies, — quite as much so as are the male students. After all that has happened they are allowed to continue here, and, as expected, after twelve years' trial, they do not cause any great excitement. Two of our female students, having passed the examinations here, practice in Zurich, two others in Berlin, one in London, one in St. Petersburg, etc., all with success.

The Russian ladies were doubtless intimately connected with the nihilists, and the action of the Russian government is therefore easily understood. The number of students of the university here has grown very large, because every foreigner formerly was admitted without any examination. The fact that, for instance, several mistresses of German noblemen tried to be admitted induced the government, in accordance with a proposition made by the senate, to pass an order making a *testimonium morum* requisite for the admission of a lady student, and also the proof of a certain standard of education. We are, therefore, now able to prevent similar occurrences. There have been no disturbances between male and female students, but several marriages (two or three). The official papers which I send will enable you to understand better the state of the question. Yours truly, Edmund Rose.

Zurich, *August* 17, 1879.

SHORT COMMUNICATIONS.

PSEUDO-HYPERTROPHIC PARALYSIS.

BY S. G. WEBBER, M. D.

In the number for September 11th "Enquirer" asks, "What is the pathology of the above-named disease?"

In the Journal for November 17, 1870, I gave, in tabular form, a summary of all the cases of which I could at that time find record, numbering forty-one. I have now the references to thirty-five or forty authors who have since that date reported from one to four or five cases each, a total of about one hundred and fifty cases. I have also since then seen three undoubted cases of the disease: two were sisters, and one case in which there might be a doubt as to the diagnosis.

Almost without exception the disease begins in early life, before eight years of age, generally as early as three, sometimes before the second year. First there is weakness; then the calves increase in size, sometimes the peronei and tibial muscles; occasionally a few of the muscles moving the thigh on the pelvis or those of the shoulder are enlarged. As the child grows older certain muscles, especially those of the upper extremities, are affected with atrophy. There are pauses in the progress of the disease, but a cure is not to be expected. In a few cases a fall has preceded the development of the symptoms, or there has been an acute febrile attack, such as measles, but in most cases there is no history of a previous injury or disease. It might be questioned whether these accidents have really been the cause of the affections.

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[1] Written to a friend in this city.

The disease is of long duration; the patients see many physicians, at last are given up as hopeless cases, and die of some intercurrent affection. Autopsies are rare. With two exceptions the results of autopsies have been uniformly to show changes in muscular tissue, and no primary changes in the spinal cord or nerves. The changes in the muscles consist in an increase of interstitial tissue and fat among the muscular fibres, pressing them apart; a diminution in the size of the individual fibres, the striæ being retained, but becoming finer as the size of the fibres decrease; in extreme cases a diminution in the number of the fibres; no fatty degeneration of the fibres, as is seen in progressive muscular atrophy. Very rarely there have been found hypertrophied muscular fibres. These changes have been seen not only in fatal cases, but in others, when portions of the muscles have been removed by a harpoon.

In the cord, Brieger[1] observed no change. N. H. Bay[2] found a slight amount of sclerosis of the lateral columns, which was thought to be secondary. Cohnheim found no change in the cord. Charcot in two cases[3] found no change in the cord. Gowers and Clarke[4] found granular degeneration around the blood-vessels, the nerve cells being entirely healthy. These changes Gowers[5] thinks are secondary, and due to disturbances of the system which arise shortly before death.

Of the two exceptions above referred to, one is by Barth.[6] The nerve cells of the anterior cornua were affected. This case was that of an adult, and the date at which it began, the course of the disease, the aggregation of symptoms, and the morbid changes all concur in raising a question as to its identity with the disease under consideration. The second is a case by Müller.[7] There was a fall at four years of age. The account does not state when the weakness was noticed. There were club-feet; one leg was smaller than natural, the other larger. The patient, a girl, at the time of observation was insane, and remained so till death, the insanity being rather of the nature of general paralysis. It is impossible to distinguish whether the changes in the cord belonged to the muscular hypertrophy or to the general affection of the nervous system. The case was clearly complicated and exceptional.

The weight of evidence so far is opposed to the spinal origin of the disease; the only change which has been found constantly is muscular. Gowers[8] suggests that the affection may be due to a congenital error of development, in consequence of which the muscles are affected at the time when the earliest strain is put upon them.[9]

The case reported so briefly in this journal for August 21st is not a typical case of the disease; every particular given differs from what is usually found. The case began at eleven years, much later than usual. There is complete paralysis of the legs after three years, which has not occurred so soon in cases beginning late in early childhood. The muscles of the thighs are affected. The calves are almost invariably the first to enlarge.

[1] Archiv für klin. Med., 1878, page 200.

[2] Hospitals Tiedende, 1877.

[3] Arch. de Physiol., iv., 1871. Leçons sur les Maladies du Système nerveux, t. ii., 1877.

[4] Med. Chir. Transactions, vol. lvii., page 247.

[5] Lancet, July, 1879.

[6] Arch. d. Heilkunde, xii., 1871, page 121.

[7] Beiträge zur pathologische Anat. und Physiol. des mensch. Rückenmarks, 1871.

[8] Lancet, July, 1879.

[9] If "Enquirer" can conveniently refer to the London Lancet for July, he will find the paper by W. R. Gowers well worth reading.

COMPOUND DISLOCATION OF RIGHT ANKLE JOINT.

BY THOMAS HENDERSON, M. D., LAKE FOREST, ILL.

JOSEPH O'K., while riding behind a horse that became unmanageable, the evening of March 11, 1879, jumped from the wagon, and sustained a compound dislocation of the right ankle-joint. The flesh over the joint was lacerated two and a half inches, and the entire end of the tibia protruded through the wound. There was also partial dislocation of the scaphoid and cuboid bones of the same foot.

He was placed under the influence of chloroform, and the wound dressed with warm water. No disinfectants were used, and the dislocation was reduced. The limb was bound up in a thick wadding of cotton and splints, and he returned home, a distance of one and a half miles, over a rough road, where the temporary dressings were removed. A splint on the outer side of leg and cold-water dressings were then applied.

The day following antiseptic dressings were commenced. The wound was dressed every third day for four weeks, the patient being anæsthetized each time. With the exception of an abscess forming and opening spontaneously on the outside of the leg just about the ankle joint, the wound progressed favorably under the following treatment: Splints on outside of leg and foot, and carbolic-acid dressings, except a few days, when flaxseed poultices were applied to encourage granulations. With the exception of a very few doses of morphine to obtain sleep, no drugs whatever were taken. There were only a few days that the temperature or pulse was above the normal stardard; consequently at no time was his life compromised. There is at this writing, September 10th, a small opening over the joint and a slight discharge, which is steadily and gradually decreasing in quantity. The joint is firmly anchylosed, with the toes pointing slightly downwards. No necrosis can be discovered in or about the joint. The patient was confined to his bed ninety-six days. Since then he has been about on his crutches, and thinks he can bear two thirds of his weight — one hundred and sixty pounds — on the injured foot. Dr. Bond, of Libertyville, whose counsel and advice were of much value, occasionally saw the patient. I have ventured to report this case as furnishing proof that it is not always necessary to amputate or excise in compound dislocations of ankle-joints, as recommended by the majority of surgeons, from Hippocrates down to modern authors.

THE SECRETARY OF WAR'S OPINION ON DR. HAMMOND'S CASE.

IN March last, an act of Congress was passed for the relief of Dr. W. A. Hammond, late surgeon-general of the army, and upon recommendation of the secretary of war the findings and sentence of the general court-martial promulgated in 1864 have been annulled and set aside by the president, and Dr. Hammond is placed on the retired list of the army as surgeon-general without back, present, or future pay or allowance of any kind whatsoever. The following is the opinion of the secretary of war referred to in the foregoing order. After reciting the law as above, and giving a synopsis of the charges upon which Surgeon-General Hammond was tried, the secretary continues in his report to the president: —

I have the honor to submit my conclusions upon the case, as follows: —

First. In construing the act of Congress of April 16, 1862, as not depriving the surgeon-general of the power to purchase medical supplies, Dr. Hammond was guilty of no crime. The construction he placed upon that act, whether erroneous or not, was entirely consonant with an honest purpose, and such a purpose must be presumed until the contrary appears. The act authorized medical purveyors to purchase all medical supplies under the direction of the surgeon-general. The surgeon-general held that the power to make purchases in person, which had been previously exercised by him and by his predecessor, was not taken away by this act; that the purveyors were placed under his orders for the purpose of aiding him in the performance of that duty, rendered very onerous at that time by a great war. He held that what he could command another to do he could do himself; that what he could do indirectly he could do directly. I am clearly of the opinion that the construction of the act was not so palpably wrong as to render all acts done in performance of it presumably criminal. It was the duty of the surgeon-general to construe and execute the act.

Second. The acts of the surgeon-general in making purchases of medical supplies in person and not through a medical purveyor, and in directing purveyors to purchase particular articles at specified prices from certain persons, were not acts in themselves criminal. The mere fact that these things were done did not raise a presumption of guilt to be overthrown by the accused. The burden was upon the prosecution to establish, by competent evidence and beyond a reasonable doubt, that the acts complained of were done with corrupt intent.

Third. Upon the question of intent the board recently convened finds that there is no evidence that the surgeon-general was interested in or profited by the contracts which were charged as fraudulent. It is further found by the board that there is no direct evidence to establish corruption, and that the circumstantial evidence upon the question of intent is conflicting and some of it incomplete. But the board sustains the sentence of the court-martial largely upon the ground that the acts complained of were unlawful in themselves, and that therefore a fraudulent intent must be presumed until the contrary is established by the accused, the burden being on him. This I regard as a grave error, for the reasons already stated.

Fourth. In my opinion the evidence does not establish the charge of corruption, and it is only by assuming that the acts complained of were in themselves so palpably unlawful as to raise the presumption of criminal intent that any sufficient foundation for the sentence of the court-martial can be found, and that assumption not being warranted by the terms of the statute, the finding cannot be upheld.

Fifth. The charge of falsehood is not sustained. Dr. Hammond stated in a private letter to Dr. Cooper that General Halleck had requested the detail of Surgeon Murray for duty at Philadelphia. It was charged that General Halleck had not made this identical request, but it was admitted that he had requested the transfer of Dr. Murray from the South to Eastern hospital duty. It was in proof that Dr. Murray had urgently requested General Halleck to secure his transfer to Philadelphia, and it is not improbable that this was mentioned by General Halleck to Dr. Hammond, as the latter claims. General Halleck testified that he had no recollection of having mentioned Philadelphia as the place to which he desired to have Dr. Murray sent. There is room for doubt as to what the surgeon-general understood the request of General Halleck to be. There is still greater room for the conclusion that an honest misunderstanding arose between the two, and I cannot but regard it as a very harsh and unjust judgment which pronounced the surgeon-general guilty upon this charge.

I recommend that the finding and sentence in the case of Surgeon-General William A. Hammond, referred to, be annulled and set aside, and that the name of said William A. Hammond be placed on the retired list of the army as surgeon-general, without back, present, or future pay, or allowances of any kind whatsoever.

GEORGE W. MCCRARY, Secretary of War.

THE METRIC SYSTEM IN MEDICINE.

OLD STYLE.	METRIC. Gms.	
♏i. or gr. i. equals		06
fʒi. or ʒi. equals	4	
f℥i. or ℥i. equals	32	

The decimal *line* instead of *points* makes errors impossible.

As .06 (Drug) is less than a grain, while 4. and 32. (Vehicle) are more than the drachm and ounce, there is no danger of giving too large doses of strong drugs.

C. C. used for Gms. causes an error of 5 per cent. [excess].

A teaspoon is 5 Gms.; a tablespoon, 20 Gms.

OFFICIAL LIST OF CHANGES OF STATIONS AND DUTIES OF OFFICERS OF THE MEDICAL DEPARTMENT U. S. ARMY, FROM SEPTEMBER 12, 1879, TO SEPTEMBER 19, 1879.

ADAIR, GEORGE W., lieutenant and assistant surgeon. Assigned to duty as post surgeon, Fort Mackinac, Michigan. S. O. 161, Department of the East, September 13, 1879.

MIDDLETON, P., captain and assistant surgeon. Relieved from duty in the Department of the East, to take effect October 1, 1879, and to report to the commanding general, Department of Texas, for assignment to duty. S. O. 215, C. S. A. G. O., September 17, 1879.

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REPORTED MORTALITY FOR THE WEEK ENDING SEPTEMBER 13, 1879.

Cities.	Population estimated for July, 1879.	Reported Deaths in each.	Annual Death-Rate per 1000 during the Week.	Percentage of total Deaths from				
				The Principal "Zymotic" Diseases.	Diarrhœal Diseases.	Diphtheria and Croup.	Pneumonia	Typhoid Fever
New York	1,085,000	543	26.09	32.41	19.89	3.32	4.97	0.92
Philadelphia	901,380	232	13.42	12.93	7.33	.43	2.69	3.45
Brooklyn	564,400	246	22.73	25.20	14.23	6.09	4.88	0.81
Chicago	—	170	—	34.12	12.35	11.77	2.35	2.94
St. Louis	—	105	—	25.71	13.33	4.76	4.76	1.90
Baltimore	365,000	143	20.43	31.47	11.19	4.19	1.39	4.90
Boston	360,000	136	19.69	37.50	28.68	2.94	1.47	3.67
Cincinnati	280,000	86	16.01	34.88	16.28	4.65	5.81	2.33
New Orleans	210,000	70	17.38	11.43	8.57	—	2.86	—
District of Columbia	170,000	82	25.15	21.95	17.07	—	4.88	2.44
Cleveland	160,000	38	12.39	42.11	21.05	5.26	2.63	5.26
Pittsburgh	—	54	—	46.30	14.81	14.81	1.85	3.70
Buffalo	—	—	—	—	—	—	—	—
Milwaukee	127,000	52	21.35	30.77	13.46	11.54	1.92	—
Providence	101,500	34	17.47	23.53	11.76	2.94	—	—
New Haven	60,000	17	14.77	23.53	5.88	5.88	—	—
Charleston	57,000	34	31.10	14.71	11.76	—	2.94	2.94
Nashville	27,000	13	25.11	15.38	9.69	—	—	7.69
Lowell	53,300	14	13.69	35.71	28.56	7.14	—	—
Worcester	52,500	17	16.88	29.53	23.53	—	—	5.88
Cambridge	50,000	15	15.64	46.66	33.33	13.33	—	—
Fall River	48,500	21	22.57	57.14	28.57	—	—	4.76
Lawrence	38,200	15	20.47	26.66	13.33	13.33	—	—
Lynn	34,000	9	13.81	22.22	22.22	—	—	—
Springfield	31,500	14	23.17	14.28	7.14	7.14	7.14	—
New Bedford	27,000	9	15.58	44.44	22.22	—	11.11	11.11
Salem	26,400	6	11.85	33.33	33.33	—	—	—
Somerville	23,350	3	6.70	33.33	—	—	—	33.33
Chelsea	20,800	4	10.03	—	—	—	—	—
Taunton	20,200	7	18.07	—	—	—	—	—
Holyoke	18,200	6	17.19	16.66	—	—	—	—
Gloucester	17,100	5	15.24	20.00	—	—	—	—
Newton	17,100	—	—	—	—	—	—	—
Haverhill	15,300	13	44.30	30.77	15.38	7.69	—	—
Newburyport	13,500	3	11.59	—	—	—	—	—
Pittsfield	12,650	—	—	—	—	—	—	—
Fitchburg	12,500	5	20.85	20.00	20.00	—	—	—
Milford	9,800	3	15.96	—	—	—	—	—

Two thousand two hundred and twenty-four deaths were reported: principal "zymotic" diseases 632, diarrhœal diseases 348, consumption 336, diphtheria and croup 98, pneumonia 76, scarlet fever 59, typhoid fever 49, bronchitis 37, malarial fevers 31, whooping-cough 30, measles nine, erysipelas five, cerebro-spinal meningitis four, small-pox none. From *scarlet fever*, New York 12, Baltimore and Cincinnati seven, Brooklyn and Chicago six, Pittsburgh and Fall River five, Providence three, Philadelphia and Boston two, District of Columbia, Cleveland, Holyoke, and Gloucester one. *Malarial fevers*, New York 16, St. Louis five, Baltimore three, New Orleans, Milwaukee, and New Haven two, Charleston one. *Whooping-cough*, New York eight, Baltimore five, Brooklyn four, Philadelphia, Chicago, Cincinnati, and Pittsburgh two, St. Louis, Boston, District of Columbia, Cleveland, and Milwaukee one. *Measles*, New York six, Chicago, Baltimore, and Cleveland one. *Erysipelas*, Chicago two, New York, Cincinnati, and Cleveland one. *Cerebro-spinal meningitis*, New York two, Chicago and New Bedford one. There is a still further reduction, this week, in the mortality from diarrhœal diseases, with an increase from consumption, pneumonia, diphtheria and croup, scarlet fever and measles. In 19 cities and towns of Massachusetts, with an estimated population of 872,150, scarlet fever and typhoid fever were increasing.

The meteorological record for the week in Boston was as follows: —

Date.	Barometer.	Thermometer.			Relative Humidity.				Direction of Wind.			Velocity of Wind.			State of Weather.[1]			Rainfall.	
	Mean.	Mean.	Maximum.	Minimum.	7 A. M.	2 P. M.	9 P. M.	Mean.	7 A. M.	2 P. M.	9 P. M.	7 A. M.	2 P. M.	9 P. M.	7 A. M.	2 P. M.	9 P. M.	Duration.	Amount in Inches.
Sept. 7	30.086	66	74	59	88	80	95	87	SW	SW	S	3	10	11	F	R	F	.2	—
" 8	29.789	68	78	61	100	64	84	82	S	SW	W	12	12	8	O	F	F	7.3	.40
" 9	29.994	60	69	52	81	50	77	69	W	NW	W	9	12	5	C	F	C	—	—
" 10	30.260	63	72	55	43	55	74	57	NW	E	SW	7	7	2	F	F	O	—	—
" 11	30.337	60	67	52	80	64	77	73	N	E	SE	4	5	3	H	F	C	—	—
" 12	30.214	60	75	52	81	60	59	66	0	SE	SW	0	11	8	H	F	C	—	—
" 13	30.098	62	72	51	76	39	88	67	SW	S	SW	4	14	7	F	F	C	1.7	.02
Week.	30.108	63	72	54				72	SW			1213 miles.						9.2	.42

[1] O., cloudy; C., clear; F., fair; G., fog; H., hazy; S., smoky; R., rain; T., threatening.

The cases of yellow fever reported in Memphis for the week ending September 20th declined to 80 and the deaths to 25.

For the week ending August 23d, in 149 German cities, with an estimated population of 7,555,488, the death-rate was 27.6 against 27.2 of the previous week. Diphtheria was about the same, diarrhœa less prevalent, and the other infectious diseases more so. Four thousand and seventeen deaths were reported: diarrhœal diseases 869, consumption 451, lung diseases 219, diphtheria and croup 97, whooping-cough 60, typhoid fever 59, scarlet fever 56, measles 37, puerperal fever 13, small-pox two. The death-rates ranged from 13.8 in Lubeck to 40.8 in Chemnitz; Munich 35.3; Dresden 29.0; Berlin 30.3; Hamburg 27.0; Hanover 22.8; Cologne 23.8; Frankfort 22.3. Also for the same week, Vienna 23.4; Paris 21.8.

For the week ending August 30th, in the 20 English cities and towns, with a population estimated at 7,383,999, the death-rate was 19.3 against 18.1 of the previous week. Two thousand seven hundred and thirty-one deaths were reported: diarrhœa 343, lung diseases 149, scarlet fever 109, whooping-cough 78, measles 62, fever 34, diphtheria 21, small-pox (London) seven. The death-rates ranged from 11.1 in Portsmouth to 22.9 in Manchester and Leeds; London 20.0; Bristol 17.4; Birmingham 17.5; Liverpool 21.6. In 28 Belgian cities and towns of 10,000 population and over, the death-rate was 18.9; in 24 of less size, 22.5, — diarrhœa, typhoid fever, whooping-cough, and measles continuing very prevalent, as was small-pox to a less extent; one death was reported from diphtheria, and none from scarlet fever; Brussels 22.8; Antwerp 23.6; Ghent 29.6; Liege 21.2. In 19 prominent Swiss towns, small-pox and whooping-cough were most prevalent of the infectious diseases, the others being quite rare.

Books and Pamphlets Received. — Vegetarianism the Radical Cure for Intemperance. By Harriet P. Fowler. New York: M. L. Holbrook & Co. 1879.

Emotional Prodigality. By C. Fayette Taylor, M. D. (Dental Cosmos, July, 1879.)

American Health Primers. Eyesight and How to Care for It. By George C. Harlan, M. D. Philadelphia: Lindsay and Blakiston. 1879. (For sale by A. Williams & Co.)

The French Exhibition of Horrors. A Sermon on the Sin of Torturing Animals. By Rev. John Moffatt, Minister of the Scotch Kirk, Bayfield, Canada. Toronto. 1879.

On the Connection of the Hepatic Functions with Uterine Hyperæmias, Fluxions, Congestions, and Inflammations. By L. F. Warner, M. D. (Reprint from the Transactions of the American Medical Association.) 1879.

Transactions of the Minnesota State Medical Society. 1879.

Transactions of the Medical Association of Georgia. 1879.

Transactions of the Medical Society of the State of New York for the Year 1879. Syracuse, N. Y.

Report of the Board of Health of the City and Port of Philadelphia for the year 1876.

The Ampulla of Vater and the Pancreatic Ducts in the Domestic Cat. By Simon H. Gage, B. S. New York. 1879.

The Heart and its Diseases, with their Treatment, including the Gouty Heart. By J. Milner Fothergill, M. D., etc., etc. Second Edition, with Additions. Philadelphia: Lindsay and Blakiston. 1879. (From A. Williams & Co.)

Student's Guide to the Diseases of Women. By A. L. Galabin, M. A., M. D., F. R. C. P., etc., etc. Philadelphia: Lindsay and Blakiston. 1879. (From A. Williams & Co.)

Transactions of the Thirty-Fourth Annual Meeting of the Ohio State Medical Society. Columbus, O.: Cott and Hann. 1879.

Santa Cruz for Homes. The Climate, Botany, Geology, and Health of Santa Cruz and Vicinity. By C. L. Anderson, M. D. San Francisco: Wallace W. Elliott & Co.

Eyeball Tension: Its Effect on the Sight and its Treatment. By W. Spencer Watson, F. R. C. S. Eng., B. M. Lond., etc., etc. London: H. K. Lewis, 136 Gower Street. 1879.

Fifteenth Report of the Trustees of the City Hospital, Boston, with Reports of the Superintendent and Professional Staff, etc. Boston: Rockwell and Churchill. 1879.

Report on Hog Cholera. By D. N. Kinsman, M. D., Columbus. (Read before the Ohio State Medical Society, June 3, 1879.)

Dermatitis Venenata, or Rhus Toxicodendron and its Action. By Roswell Park, A. M., M. D. (Archives of Dermatology, July, 1879.)

Medical and Surgical History of the War of the Rebellion. Part II. Medical Volume. Surgeon-General's Office. Washington: Government Printing Office.

Richet's Histology and Physiology of the Cerebral Convolutions. Also Poisons of the Intellect. Translated by Edward P. Fowler, M. D. New York: William Wood & Co. 1879. (Frank Rivers, 28 School Street, Boston.)

The National Dispensatory. By Alfred Stillé, M. D., LL. D., and John M. Maisch, Phar. D. Second Edition, revised and enlarged. Philadelphia: Henry C. Lea. 1879.

Transactions of the Twenty-Sixth Annual Meeting of the Medical Society of the State of North Carolina. 1879.

Tracheotomy with the Galvano-Cautery. By William A. Byrd, M. D. St. Louis. 1879.

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REPORT OF EIGHT CASES OF UTERINE FIBROIDS, WITH REMARKS UPON THE SAME.

BY A. VAN DERVEER M D.,

Professor of the Principles and Practice of Surgery in the Albany Medical College, Attending Surgeon to the Albany and St. Peter's Hospitals, Corresponding Member of the Gynæcological Society of Boston, etc.

Case I. *Uterine Fibroid, Submucous or Subperitoneal, removed by Incision through Posterior Wall of Vagina.* — Mrs. Anna D., aged thirty-eight, born at Albany, N. Y., married at sixteen, and the mother of one child. Father died of carcinoma of the stomach, and the mother of phthisis pulmonalis. One sister, at the age of twenty-one, died of tuberculosis of the mesentery. She has four sisters, all more or less inclined to corpulency, but neither very healthy nor strong. The patient was never robust. In the summer of 1874 she complained of exhaustion, pains in the feet, and a general anasarca of the body, and particularly of the limbs. Patient at this time weighing ninety-one pounds (forty-two kilos.) was doing housework of a very irksome nature. In the following January her weight was one hundred and sixty pounds (seventy-three kilos.). There being great pain in her rectum, she consulted a physician, and was treated for piles. Later in the winter of 1875, while in the water-closet, she noticed an inability to pass water, a retention which continued intermittently up to the time of operation. Whenever her bladder became distended she complained of great pain, experiencing relief, however, after her water was drawn. Patient was addicted to the use of liquor, and in July of 1876 was taken to the Albany House of Shelter. Previous to this she had been told that the difficulty in passing water was due to a tumor of the uterus, but it was thought to be harmless, and troublesome only in causing retention of urine. When the authorities of the House of Shelter became aware of the difficulty of the womb, she, by their order, came under the care of Dr. W. H. Bailey. In August an examination was made by myself, and by Drs. W. H. Bailey, Curtiss, and Hall, and a tumor about the size of an infant's head was discovered on the posterior wall of the uterus. It was believed to be interstitial. There had never been any severe uterine hæmorrhage, nor had the patient ever suffered from any uterine disease. An operation was advised, and after considerable delay it was consented to by the patient. In the latter part of September the surgeons and physicians of the Albany Hospital staff met at the House of Shelter, and there decided to remove the tumor per vaginam. It was then found that the uterus was firmly contracted and high up in the pelvis, and that soon she expected her monthly period; consequently the operation was postponed. November 3d the same corps reassembled, intending to operate, when it was learned that the menses had unexpectedly appeared.

December 17th, at the Albany Hospital, in the presence of several physicians I proceeded to operate. The uterus was pressed so far forward and above the symphysis as to make it impossible to feel the external os or to introduce the sound. Squibb's fluid extract of ergot had been given in twenty to thirty drop doses three times daily, when she was not menstruating, for nearly six weeks, with the effect of producing at times strong uterine contractions, and forcing the tumor farther down into the cavity of the pelvis, where it could now be plainly felt through both the vagina and rectum. The position of the fibroid was believed to be about as represented in Figure 1. The patient was placed in the position for lithotomy, and the lips of the vulva were well separated by wire retractors. An incision was made through the posterior wall of the vagina; the tumor, well exposed, was seized by strong vulsellum forceps, and held by Dr. Swinburne, while with my fingers I loosened its attachments. I found, however, that it was impossible to bring it out, as the forceps would tear from its hold. A fortunate sug-

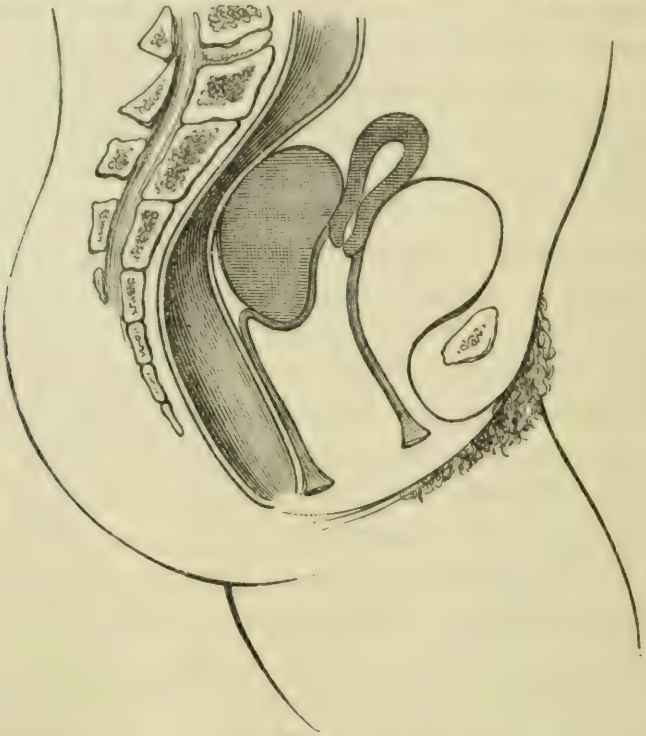

Fig. 1.

gestion was now made by Dr. Ward, and, acting upon it, I applied the small obstetric forceps, and with them delivered the tumor beyond the vulva, but was somewhat annoyed to find that we had also brought along the uterus, left broad ligament, and ovary covered by folds of peritonæum. An incision was then made through the capsule of the tumor at its most dependent part, and by careful dissection it was removed from its attachments to the uterus, the peritoneal cavity not being opened. The uterus was returned without difficulty to its normal position, and six interrupted silk sutures were applied to close the opening in posterior wall of the vagina. The operation lasted nearly an hour, and the patient was a good deal exhausted. She was placed in bed; warm applications were made to the extremities, and stimulants administered. She rallied in a few hours. The after-treatment consisted of sulphate of quinine two grains (gram 0.129) every two hours for one week, tinct. ferri chlor. ten minims (0.6 cc.) three to four times daily, and good, nourishing food. The vagina was well washed out daily with carbolized water. Urine was drawn for three days every eight hours, then passed voluntarily on bed-pan. Bowels were moved on the eighth day by enema. The ligatures were removed on the sixth day, and union was quite complete. Five weeks after the operation patient was about the wards. An examination six months after the operation found the parts in normal condition. Menstruation was natural and painless. No trouble with the bladder, no pain in the rectum; in fact, she is in perfect health.

Connected with the large tumor was one of smaller size. Weight of large tumor, ten ounces (grams 311); weight of small tumor, three and one half drachms (grams 13.6).

Remarks. This case presents many points of great interest. So far as I am aware it is the first successful operation for the removal of uterine fibroid in this manner. To me the operation was entirely new, and in its conception altogether original. Cases of this kind must necessarily be somewhat rare, yet I believe the operation is a safe and wise one. I am inclined to the belief that the tumor was interstitial in character, and that it had worked its way along through the posterior lip of the uterus underneath the pelvic peritoneal folds into the cavity of the pelvis. At the time of the operation its attachment seemed to be by a distinct capsule. It is certain, however, that no folds of the peritonæum were injured.

CASE II. *Submucous Fibroid, weighing Two and One Half Pounds* (5.67 *Kilos.*), *removed by Enucleation with Serrated Scissors and Small Obstetric Forceps.* — I was called May 16, 1878, by Dr. J. N. Haynes, of Cohoes, to see Mrs. S., who was suffering from a uterine fibroid. She gave the following history: She had been married twenty years, but was never pregnant. Age forty-four. She had been normal in her menstruation, and usually in good health. Between three and four years ago she noticed a gradual increase of the flow during menstruation. This became so severe that for the past six months she had been flowing three out of the four weeks, and very profusely. She also had leucorrhœa quite badly. About a year ago, and before coming under Dr. Haynes's care she was treated for retroversion of the uterus, and several pessaries were tried, but no good resulted. Dr. Haynes saw her in January, 1878, and after a careful examination made the diagnosis of uterine fibroid. He prescribed a good tonic course of treatment, washing out the vagina twice daily with carbolized water, and enjoined absolute rest. Some time in March, 1878, she took by mistake one fluid drachm (3.69. cc.) of the solution of atropia, two grains to the ounce. The os uteri now began to dilate, and from the cavity of the uterus there escaped a very offensive discharge, creating fears that the growth might be malignant. Squibb's fluid extract of ergot, fifteen to twenty drops, was given three or four times daily up to the time of my visit. She then presented a marked anæmic condition, pulse frequent, and heart's action increased by the least excitement. The lower extremities were quite œdematous. Bowels quite regular, and urine normal. On examination of the uterus by palpation and per vaginam there was found in the posterior wall a large submucous fibroid tumor. A uterine virgin silver sound passed forward swept easily over the anterior portion of the tumor, and entered the cavity of the uterus to the depth of four inches (one hundred and two mm.). The os was well dilated, and a portion of the tumor, like a turkey's egg, was presenting. The discharge had now a light, somewhat muddy appearance, but was not very offensive in smell. Vaginal injections of carbolized water were being used quite freely. Her condition being feeble, stimulants, quinine, and milk were ordered to be given liberally, and an operation advised at an early day. On the 20th of March, the patient having improved, assisted by Drs. Haynes, W. H. Bailey, and J. D. Featherstonhaugh, I began the operation for enucleation and removal of the tumor per vaginam. The patient was placed on a narrow table in the position for lithotomy, and ether given by Dr. Featherstonhaugh. The lips of the vulva were held apart in the same manner as in Case I. There was little trouble in cutting through the capsule, but all efforts to get the wire or chain of the écraseur around the tumor failed. I finally succeeded, with the curved serrated scissors (good size), in enucleating sufficiently to apply the small obstetric forceps, and by using considerable force delivered the tumor into the cavity of the vagina. Drs. Bailey and Haynes had in the mean time relieved each other in keeping up constant pressure over the fundus of the uterus. The forceps were now reapplied, and after some little effort the fibroid was completely separated from its attachments and brought out through the vulva. It weighed two and one half pounds (1.13 kilos.), and measured in its long diameter four and one half inches (one hundred and fourteen mm.), and in its short diameter four inches (one hundred and two mm.), the circumference being fourteen inches (three hundred and fifty-five mm.).

The operation lasted one hour and fifteen minutes. There was a slight rupture of the perinæum, which was closed by three interrupted sutures. A tampon of sponge was placed in the vagina, to be left for a few hours. For the remaining history of the case I am indebted to Dr. Haynes. The patient soon rallied from the operation, and was in good condition. She began gradually to improve under the use of anodynes, stimulants, and tonics. The hæmorrhage was very slight the first day, and the sponge was withdrawn and carbolized injections were used. The catheter was employed from time to time during the first four or five days. She continued to improve, and was about the house by the 10th of June. On the 14th of June she was taken with acute phlebitis of the right leg and side of pelvis. This yielded to warm applications and anodynes, so that in ten days all unpleasant symptoms had subsided.

In a letter received August 19, 1878, from Dr. Haynes, he states, "Mrs. S. is doing finely. Has gained fifteen pounds in weight, and is all over town and out of town, and where she likes. She says she has not felt so well in three years. Still the right limb, where the phlebitis occurred, persists in swelling up considerably when she has been around upon it all day. No untoward symptoms, only the leg of course feels stiff and unwieldy by evening, but it is perfectly natural again by the next morning. Calf of leg swells to a circumference of fourteen and one half inches (three hundred and sixty-eight mm.), the same as six weeks ago. Meanwhile the other calf has increased in measurement from eleven to twelve and one half inches (two hundred and seventy-nine to three hundred and seventeen mm.) by gain in flesh ; so I reason that the sick leg does not swell as much by one and one half inches (thirty-eight mm.) as it did."

Remarks. This case illustrates the fact that surgical interference in such uterine tumors becomes absolutely necessary, as the patient will die from exhaustive hæmorrhage unless relieved. It shows also the necessity of an early diagnosis, in order that the tumor may be removed before it can become so large. This case and the succeeding one go to show that we lacked just the kind of instrument needed for the enucleation of a submucous fibroid tumor.

CASE III. *Submucous Fibroid weighing Two Ounces and Two Drachms (Grams Seventy) removed by Long Curved Serrated Scissors.* — March 10, 1878, I was requested by Dr. A. Boyce, of Nassau, in company with Dr. Parmele, of Greenbush, to visit Mrs. W., aged thirty-four, the mother of three children. If necessary and deemed best, I was to operate on what Dr. Boyce believed to be a uterine fibroid. She gave the following history: Was in good health and worked hard up to two years ago, when she noticed an increase of flow at her menstrual periods; that is, it lasted a greater number of days, and was more profuse. The condition had increased, until in the past six months she had grown so weak as hardly to be able to leave her room, and for most of the time was confined to her bed, the flow scarcely ceasing. She now presented a very pale look, together with the following symptoms: pulse 120, respiration increased, inability to sleep, loss of appetite, and from the vagina a constant discharge, pale, muddy, and somewhat bloody in appearance, and having an offensive odor. Dr. Boyce made the diagnosis of uterine fibroid over a year ago. Examination per vaginam at this time revealed the os well dilated, and presenting well at the external lips was a fibroid about the size of a small orange, having a not very broad attachment to the left side of the uterus. Dr. Boyce had been giving Squibb's fluid extract of ergot by my suggestion for over a week in half drachm (1.8 cc.) doses three times a day. This had produced well-marked uterine contractions, and from them she was now suffering. Though the flow was quite marked, it was determined upon consultation to proceed with the operation for the removal of the tumor at once. She was placed on her left side. Sims's speculum was used. An attempt was made by both Dr. Parmele and myself to apply the chain of the écraseur, but in this we failed. Finally I succeeded in dilating the uterus sufficiently to pass up the long serrated scissors, and after severing the attachments of the tumor brought it away. The weight of the tumor was two ounces and two drachms (grams seventy).

The patient was very much exhausted, though the operation did not last over twenty minutes. She was kept quiet in bed for several weeks before she was well enough to sit up, but finally she made a good recovery, and at the present time, I am informed by Dr. Boyce, she is regular in her menstruation and in perfect health.

(*To be concluded.*)

CHANGES IN MEDICAL PRACTICE.

BY NATHAN ALLEN, M. D.

At the late meeting of the British Medical Association, held at Cork, Dr. Andrew Clarke gave a superior address before the section on practical medicine. This address discusses three topics, namely, (1) defects in medical education, (2) some peculiarities in the present state of therapeutics, and (3) the importance of experimental inquiry by vivisection and other means. Under the second head a subject is introduced which is deserving of special attention. Says Dr. Clarke: "The nervous system, cultivated in every direction, and strained and harried by an intense life, has assumed almost new relations to the other parts of the organism, altered the complexion of accustomed diseases, and engendered disordered states unknown to the literature of the past. . . . . The groups of nervous affections which cluster round an intensified physical self-consciousness constitute a large and growing proportion of the troubles which afflict the more highly cultivated men and women of the present day. . . . . We see evidences that the race is undergoing a constitutional change, and we know that this change must modify the diseases and the treatment of the diseases of mankind."

If the changes of organization here referred to are becoming marked in Great Britain, they are still more so in this country. We have more intensity of life, greater competition in business, and excitement in every department of society. A careful comparison of the physiology of the English, the Scotch, and the Irish with that of the New Englander will show, we are sure, a much greater predominance of the nervous temperament in the latter.

These changes of organism involve consequences of the greatest importance, both in health and disease. While they may be attended with certain advantages, there are evils growing out of them of no small magnitude. The quotations from Dr. Clarke imply not only an increase of nervous diseases, but also that the relations which this increase of nerve tissue has to other organs must be carefully taken into account in the treatment of disease. This complication makes the treatment more difficult as well as uncertain in result. There are two or three features in this change of organization to which we wish to call the attention of the profession. It is particularly in the case of woman where these changes are attended with very important results. It is not so much in the great increase of nervous diseases or their complications as in the effect which this predominance of nerve tissue has upon domestic life and the laws of maternity.

Within fifty years a great change has taken place in the organization of New England women. With increased nerve tissue there has been a loss of muscular development and physical strength. The changes in the state of society and the interest in all educational matters, together with neglect of exercise, have tended to produce an undue development of the brain and nervous system, compared with other parts of the body. This physical metamorphosis disables woman more or less for the duties and responsibilities of domestic life. It is not confined to mere nerve or muscle, but extends to other organs. Among these changes one is particularly worthy of notice, as it has attracted much attention. In the matter of nursing offspring there is a most surprising difference between the New England woman and the English, the Scotch, the Irish, and the German. Among these classes there is only now and then a case where there is inability of doing it successfully, but with New England women it is very different. Formerly it was not difficult here for nearly all our women to nurse their offspring. The "nursing bottle" was scarcely known. Now, probably not half our young women can properly nurse their infants. It is not the "unwillingness," but the *inability*, the lack of sufficient development of mammary glands and the requisite power in the digestive organs. The difficulty arises from defective quality of milk as well as from deficient quantity. This peculiar change of organization is increasing every year. Nothing of the kind — certainly to such an extent — can be found among any other class of women, either in history or living at the present day. What means this change — this strange anomaly — in reference to the failure in one of the most important functions of nature? Is there not something wrong, something unnatural and abnormal in it?

But there are other evidences of change in the organization of women. It is the testimony of elderly physicians that the young women at the present day do not pass through the stages of pregnancy, parturition, and recovery so favorably as those did forty or fifty years ago, — that the constitution suffers more, is oftener injured, and does not recuperate to the same extent. How often do we meet with married women, having had only one or two children, who ever after attribute their ill health to the confinement! How seldom do we find one whose constitution and health have been improved by the process! What now seemingly are exceptions were once general laws. The German, English, Scotch, and Irish women do not suffer the ill-effects of child-bearing to the same extent as do our American women. The fact has been established in Great Britain that those women who enter the married state and bear offspring have, in the aggregate, the greatest amount of health and enjoy the longest lives. The principles of physiology point also to the same result. Now why do we find so many exceptions in our American society in respect to the proper observance of the laws of maternity?

There is another point, which can be merely alluded to. If the same changes in physical organization are to continue and increase as they have for the last two generations, what is to be the result? The laws of inheritance will not change, neither will the principles of physiology.

Are we to have a greater and greater predominance of the nervous temperament? It has been advocated in high quarters that the "quality of the stock" was of the utmost importance, — that this was to be sought rather than an increase of numbers. It may perhaps be found that something else besides brain and nerve tissue are necessary to produce sound, healthy stock. It may also be found that nature has established a normal physiological standard for the propagation of the race, and that extreme deviations from this standard prove unfavorable to such results. It may be found that we have something yet to learn from the laws of physiology in their application to the propagation as well as continuance of the race.

In the various changes which have been alluded to as taking place in society, we have by no means lost sight of the heading of this article. In the course of fifty years great changes have taken place in the preparation and administering of drugs, — in kind, quality, and quantity. In the more general diffusion of intelligence of every kind, in a more correct knowledge of diseases and the laws of physiology in the community in connection with sanitary science, the practice of medicine has changed greatly from what it once was. In the removals of population from the country to the city; in the physical changes from a strong, well-balanced organization to a high nervous temperament, subject to very different diseases; in the reduction of large families to only one or two children, and in many cases to none, — these changes of locality, of organization, of disease and numbers, must necessarily affect both the interests and duties of the medical profession.

MEDICAL REPORT OF THE REFORMATORY PRISON FOR WOMEN.

BY ELIZA M. MOSHER, M. D.,
Resident Physician.

The Massachusetts Reformatory Prison for Women was opened November 7, 1877. Its object was threefold: (1) the entire separation of female from male prisoners; (2) the supervision of prisoners by persons of their own sex; (3) that a system of training might be introduced which should have for its object the improvement of the mental, moral, and physical condition of female criminals.

During the twenty-two months which have elapsed since the opening of this prison thirteen hundred and fifty-three women have been admitted or transferred from other penal institutions in the State. A large proportion of these have been committed for intemperance and prostitution. The term of sentence ranges between four months and twelve years; the ages between fifteen and seventy-six years, the average being about thirty years. Children under eighteen months are admitted with their mothers. Of these there have been eighty-eight, and forty-five have been born here. As this institution is in many respects a unique one, and the opportunities for observation are extensive, it has been thought that a statement of the work done in the hospital department, together with some facts relative to the physical condition of these women, might be of interest to the medical profession. The hospital contains sixty-eight beds, is thoroughly heated, lighted, and ventilated, and is divided into large and small wards, thus permitting the classification of diseases.

Twelve hundred and thirteen patients have been received during the twenty-two months; forty-seven of these came directly on admission to the prison, and of this number six were in the later stages of incurable diseases, and died before the expiration of their term of sentence. Many of the patients admitted had but slight ailments, sufficient, however, to prevent them from work for several successive days. The more important diseases have been as follows: —

Abscess,
Abortion,
Alcoholism,
Amenorrhœa,
Anæmia,
Apoplexy,
Aphthæ,
Asthma,
Brain softening,
Bronchitis,
Cancer,
Chancroids,
Chronic endocarditis,
Conjunctivitis,
Convulsions,
Congestion of lungs,
Congestion of brain,
Cystitis,
Dacrocystitis,
Delirium tremens,
Diarrhœa,
Diphtheria,
Dysentery,
Dyspepsia,
Entero-colitis,
Epilepsy,
Erysipelas,
Femoral arthritis,
Fissure in ano,
Fistula in ano,
Fractures,
Gangrene of lung,
Gonorrhœa,
Hæmatemesis,
Hæmoptysis,
Hæmorrhoids,
Hysteria,
Insanity,
Jaundice,
Malarial fever,
Marasmus,
Masturbation,
Menorrhagia,
Morphia habit,
Myelitis (syphilitic),
Necrosis,
Nervous exhaustion,
Neuralgia,
Otitis,
Ovarian tumor,
Ovaritis,
Paralysis,
Pertussis,
Pharyngitis,
Phthisis pulmonalis,
Peritonitis (acute),
Pleurisy,
Pneumonia,
Pregnancy (complications of),
Puerperal fever,
Quinsy,
Rheumatism,
Skin diseases (various),
Stricture of intestine,
Synovitis,
Syphilis,
Tonsillitis,
Urethritis,
Ulcers,
Uterine Diseases,
Venereal warts,
Wounds.

Forty-five deaths have occurred from the following causes: —

ADULTS.

Alcoholism, 1.
Apoplexy, 1.
Brain softening, 1.
Chronic endocarditis, 1.
Gangrene of lung, 1.
Peritonitis (acute), 1.
Phthisis pulmonalis, 4.
Suicide, 1.
Syphilis, 2.
Total, 13.

INFANTS.

Atelectasis pulmonum, 1.
Congestion of brain, 1.
Congestion of lungs, 1.
Croupous pneumonia, 1.
Diphtheria, 1.
Entero-colitis, 3.
Hydrocephalus (acute), 1.
Meningitis, 1.
Occlusion of cystic duct (congenital), 1.
Premature birth, 1.
Pertussis (complicated with exhaustion, 2; with bronchitis, 2; with pneumonia, 1; with phthisis pulmonalis, 4), 9.
Still-born, 5.
Syphilis, 6.
Total, 32.

Of the forty-five births, all but three were uncomplicated. Two severe cases of puerperal fever occurred, but complete isolation in both instances prevented infection, and both patients recovered.

The most common affections needing hospital treatment have been tonsillitis, functional disturbances of the digestive organs (including the large number of cases classed under the head of alcoholism), syphilis, and rheumatism. One hundred and fifty-four cases of tonsillitis have occurred in the twenty-two months; one hundred and twenty of these between October 1, 1878, and May 1, 1879. Many of these cases were of the severest type, simulating diphtheria so closely that only by the most careful observation could they be distinguished. The grave disturbance of the general system, the brown coat upon the tongue present in a large number of the cases, and the anæmia which invariably followed the affection led us to attribute its origin to zymotic influences; more especially so as the sewerage of the prison was in an extremely objectionable state at the time when the disease was most prevalent. At this time, also, eight cases of erysipelas occurred, without evidence of contagion in a single instance.

Many of the matrons employed at the prison were troubled with nausea and vomiting much of the time during the winter, and several were obliged to resign their positions because of ill-health. It seems possible that a proportion of the digestive disorders so common among the prisoners may have been due to the same causes; by far the larger part, however, assumed the form of atonic dyspepsia, and were brought on, without doubt, by the abuse of alcoholic stimuli and the restricted diet of a prison.

The eighty-five cases of syphilis treated in the hospital represent only the more severe forms of the disease, and those in whom the lesions were so located as to be especially dangerous to others. The larger number of cases (as shown by the dispensary table appended), though under systematic treatment, did not require isolation or exemption from work. Nearly every form of this hydra-headed disease has been manifested, from the initial lesion to the occasional outburst after many years of quiescence. The most common local manifestations besides those of the integument have been ulcerations of the vulva and rectum, always accompanied by a loss of tissue and a copious sero-purulent discharge. The two deaths which occurred from this disease in adults were marked by extensive and rapid death of tissue, with coincident exhaustion. Nearly all the children who had syphilitic lesions died in utero or before the end of the first year.

Forty-eight cases of rheumatism have been treated in the hospital; a few only of these were acute in character, and yielded readily to frequent doses of salicylate of soda. Many of the chronic cases also were benefited by the same remedy.

It is remarkable that out of so large a number of women but six cases of morphia habit should have been found. Two of these were broken of the habit by steadily diminished doses, the remainder by entire suspension of the drug on admission. It is hardly necessary to state that though the symptoms under the latter mode of treatment were for a time alarming, the patients recovered far more rapidly and surely than the previous ones.

Of the eighty-three women admitted for alcoholism, but nine had delirium tremens. In these cases the mania appeared in from two to six days after the date of arrest, and continued two to four days.

Forty-five cases of anæmia are recorded, besides those prescribed for in the dispensary. It is a suggestive fact that the larger number of these were women sentenced for prostitution, and came under treatment during the early part of their imprisonment. Diseases of the uterus and ovaries have been comparatively rare, but thirty-four cases having been treated in the hospital during the whole time. Of those able to work the number needing medical treatment has not averaged eight weekly.

Of four hundred and fifty women in whom the generative organs were examined on admission, the uterus and ovaries were found in good condition in all but twenty-eight, and four hundred and ten claimed not to have been prevented from work by pain during menstruation.

Of ninety-eight cases of punishment for misdemeanors but twenty-eight occurred at or near the menstrual period, which would seem to indicate only an accidental coincidence, especially as in some of those who were punished repeatedly menstruation was present but once.

Intemperance is the vice common to nearly all the prisoners. Out of six hundred and ten who were carefully questioned, four hundred and thirty-seven had been addicted to the use of intoxicating liquors. The cause assigned for this habit by the younger women was "bad company." Many of the married women attributed it to family troubles, while a small proportion claimed to have acquired the habit through the use of stimulants administered during an illness. Many of the women have been mill operatives, and began to drink while thus employed. Snuff taking, both by the nose and by "dipping," is quite common, and the craving for it while at the prison has occasionally been manifested by the small package of black pepper, cayenne, mustard, or ground spice found concealed upon the person.

In the administration of remedies great care has been taken to select such as contain a minimum amount of alcohol, fluid extracts, alkaloids, and infusions being made to take the place of tinctures and elixirs. An aqueous solution of the solid extract of gentian has proved a valuable stomachic, and, combined with iodide of potassium, has enabled us to give the latter drug in large doses for a long time without disturbance of the digestive function. For chronic constipation we have found exceedingly valuable the simple aloes and soda mixture so highly recommended by Dr. Hiram Corson in the Transactions of the Medical Society of the State of Pennsylvania for 1875.

The following schedule indicates the number of prescriptions made in the dispensary to patients not admitted to the hospital. The large number is due to the fact that it was necessary to restrict within safe limits the quantity of medicine intrusted to the patient's care. From November 7, 1877, to September 7, 1879, the whole number of prescriptions issued was 25,571. For digestive disorders, 4528 ; anæmia, 986 ; rheumatism, 800 ; syphilis, 1293 ; uterine disorders, 936 ; menstrual disorders, 983 ; chest affections and colds, 1700 ; throat affections, 683 ; affections of the eyes, 438 ; incidentals, 10,224.

RECENT PROGRESS IN URINARY SURGERY.

BY T. B. CURTIS, M. D.

Urinary Disturbances in Locomotor Ataxia. — Patients suffering from this disease are liable, in the course of its long-lasting successive phases, to a variety of disturbances connected with the urinary organs. Not unfrequently the symptoms of organic disease of the kidney or bladder are simulated, and the case may find its way into the hands of a surgeon, on account of the suspicions of obstruction or of calculous disease that arise. The disturbances in question make their appearance at various periods of the primary disease, and vary in their seat. They may be referred to the kidney and pelvis, or to the bladder and urethra.

The *renal* symptoms[1] consist in paroxysms of nephralgia, or kidney colic. These attacks may occur, says Dieulafoy, in the earliest stage of locomotor ataxia, and may for some time constitute the only or chief symptom. The renal pain is in some cases attended with vomiting and retraction of the cremaster, so that nephritic colic of calculous origin is closely simulated. Dr. E. C. Seguin[2] mentions pyelo-nephritis among the complications that may be observed in the later stages of the disease.

The *vesical* disturbances are of several kinds. According to Trousseau,[3] nocturnal incontinence of urine may be one of the earliest symptoms of ataxia, and complete paralysis of the rectal and vesical sphincters may be met with. This, however, is denied by Hutchinson. Paresis of the expelling fibres of the bladder may exist in various degrees, from slight paralytic dysuria to complete retention. "In ataxy," says Hutchinson,[4] "retention is common, but it has the peculiarity of being in many instances painless. Cystic paresis, or defective power on the part of the bladder to expel its contents, usually comes on by degrees. The patient is obliged, in order to empty his bladder, to give himself every hydrostatic advantage. He must stand up, and even then he is often slow in beginning, and ends before a complete result has been attained." Vesical catarrh may ensue, according to Seguin.

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[1] Raynaud, Gazette hebdomadaire, August 4, 1876, page 481. Dieulafoy, Gazette hebdomadaire, August 31, 1877, page 551.

[2] American Clinical Lectures, vol. iii., 1879, page 334.

[3] Nouveau Dictionnaire, etc., vol. iii. page 751.

[4] J. Hutchinson, Remarks on a Case of Locomotor Ataxia with Bladder Symptoms, Medical Times and Gazette, January 18, 1879, page 63.

Besides these paretic disturbances of the muscular apparatus of the bladder, causing incontinence or dysuria, some ataxic patients suffer from paroxysms of acute vesical pain, with irritation of the bladder and tenesmus.[1] These cystalgic attacks belong to the class of painful paroxysms having their seat in various viscera, namely, the stomach, rectum, kidney, and bladder (*crises viscérales* of the French), and occurring coincidently with the characteristic lightning pains of ataxia. These *crises vésicales* not unfrequently cause the presence of a stone in the bladder to be suspected, and lead the patient to consult a surgeon instead of a physician. In the terminal "paralytic" stage of the disease a severe cystitis, catarrhal or ulcerative, with fetid purulent urine, may sometimes be observed.[2]

Bigelow's Operation for Stone. — Since our last report on this subject[3] additional testimony in favor of litholapaxy has been published. Mr. Cadge,[4] senior surgeon to the Norfolk and Norwich Hospital, in England, practicing in an institution where cases of stone are exceptionally numerous, has applied the new method in five cases. The largest of the stones thus removed in a single sitting weighed two hundred and forty grains. "In these cases," says Mr. Cadge, "I used only the ordinary unfenestrated lithotrites and the smallest of Bigelow's catheters. It was easy to recognize the advantage of the full-sized evacuating catheter, and to see that the larger the catheter the greater will be the rapidity and facility in removing fragments. Further experience will perhaps enable me to overcome the prejudice against these large instruments, and at the same time to manipulate them more deftly; in the mean time, I think the new plan should not be attempted by any one who has not already acquired, by plentiful experience on the living and by repeated experiment on the dead body, all the little knacks and tricks which go far to make up successful lithotrity."

Sir Henry Thompson,[5] in a Report of Lithotrity at a Single Sitting, records thirteen cases, all but the first, which was in December, 1878, occurring in the current year. The largest of this series of stones weighed, when removed, five hundred and twenty-one grains. The age of the patient was seventy-eight years. An "improved and somewhat enlarged lithotrite," made by Weiss,[1] was used. Two sittings, however, were found necessary, the first of which lasted twenty-five minutes; the second, three days later, lasting thirteen minutes.[2] Commenting upon his cases, Sir Henry Thompson says: "The result appears to me to be encouraging. I felt, as I stated last year in a lecture at University College Hospital, that 'the proposal to remove a large and hard calculus at one sitting was an attractive one, ... and that I was predisposed to regard favorably any plan by which we may hope to take away once and for all the hard and angular fragments which must remain after an uncompleted sitting.' My experience has confirmed, perhaps even beyond my expectations, the prepossessions thus expressed for this endeavor to complete an operation by lithotrity in a single effort, but more prolonged than heretofore; and I have no hesitation in stating that we owe to Professor Bigelow the assurance that so much manipulation is tolerated by the bladder in the process of removing the stone, provided we take it away entirely, or nearly so. It is quite true that the presence of sharp, broken fragments in that viscus does more damage to it than the prolonged but of course careful use of instruments for their removal."

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[1] Trousseau, loco citato, page 753. Charcot, Maladies du Système nerveux, Paris, 1877, vol. ii. page 31. Dieulafoy, loco citato.

[2] Charcot, loco citato, pages 26 and 285.

[3] The JOURNAL, April 10, 1879, page 508.

[4] The Lancet, April 5, 1879, page 471.

[5] British Medical Journal, August 2, 1879, page 161.

Boracic Acid in Ammoniacal Cystitis.[3] — Boracic acid has long been known to possess the property of preventing or retarding certain of the phenomena of fermentation and putrefaction. At the same time it is quite devoid of any toxic or irritating action, when absorbed into the system, or brought into contact with the tissues of the body. Hence its use in some countries for the preservation of meats for the table; hence, also, its use in antiseptic surgery. Professor Polli, of Florence, has for several years been studying the chemical and therapeutic properties of this agent. Upwards of a drachm was administered daily, dissolved in water in the proportion of one part in fifty, without the production of any symptoms of intolerance. The drug is eliminated unaltered in the urine. Polli recommends its use in chronic cystitis attended with ammoniacal decomposition of the urine within the bladder, and cites several cases in which this medication was beneficial.

Flexible Metallic Catheters. — A catheter[4] is now coming into use which is figured, under the name of "Gross's flexible catheter," in the illustrated catalogue of G. Tiemann & Co., of New York, and which promises to be useful in certain cases of obstructive hypertrophy of the prostate. It is a metallic catheter, of which the distal or penile portion is a rigid tube; the remaining part, destined to occupy the deeper portion of the urethra, is flexible, the wall of the tube being cut through into a narrow strip along a closely wound spiral line; the effect is as if this part were composed of a narrow spiral metallic ribbon. The vesical extremity resembles that of the ordinary metallic catheter, with an eye situated near the end. Some of these instruments are straight; others have a bend near the end, like that of Mercier's *sonde coudée.* These catheters seem to offer several advantages. They have, in the first place, all the soft flexibility of the vulcanized rubber catheter, limited to that portion of the instrument where flexibility is most needed. They have, also, if desired, the valuable upward bend of Mercier, so that during its passage through the urethra the tip of the instrument follows the roof of the canal, thereby avoiding the obstacles liable to be encountered along the floor. Lastly, while thus uniting the qualities of the two catheters which are found most useful in cases of prostatic obstruction, Gross's catheter has the additional merit of possessing a wider bore and a larger eye than any of the various soft catheters that have been devised. The chief objection to its habitual use that suggests itself is the difficulty of keeping it clean; a few extra precautions for this purpose will probably be necessary. All things considered, it seems not unlikely to be of service for effectually washing out the bladder in cases of retention with chronic cystitis, where the urine contains large quantities of thick, ropy sediment and phosphatic deposits.

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[1] British Medical Journal, September 6, 1879, page 375.

[2] Through some inadvertence, this operation is alluded to in the British Medical Journal of September 6th (page 375) as having been performed in a single sitting.

[3] G. Polli, Revue des Sciences médicales, vol. xiii. page 144.

[4] The American Armamentarium Chirurgicum, G. Tiemann & Co., New York, 1879, part iii. page 20.

Genito-Urinary Tuberculosis. — The morbid anatomy of the various forms and degrees of tubercular disease affecting the genito-urinary organs has long been familiar to pathologists. Every year the bulletins of the Anatomical Society of Paris contain the reports of several carefully recorded cases, numbering in some years as many as half a dozen examples of the disease.[1] These cases have mostly been observed at the Necker Hospital, in the wards of Professor Guyon, which are devoted to urinary surgery. The lesions described consist, as in other organs, of inflammatory changes, acute and chronic, supervening around foci of tubercular deposit. These may be situated in the kidneys, pelves, ureters, bladder, prostate, and urethra, as well as in the testes, epididymes, and vesiculæ seminales. Ulceration takes place, more or less deeply destructive, leaving fistulous openings and tracts, and establishing communications between the neighboring digestive and urinary cavities. Complete excavation of the prostate sometimes occurs, as described in two instances by Carrié.

The cases met with at the Necker Hospital and the specimens exhibited before the Société Anatomique have been so numerous of late as to justify a suspicion that the disease may often pass unrecognized in common practice, owing to a lack of familiarity on the part of practitioners with its characteristic features. Considerable interest attaches, therefore, to several carefully written essays which have recently appeared, contributed chiefly by pupils of Professor Guyon, and setting forth the clinical history of genito-urinary tuberculosis in its various forms and phases.[1]

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[1] Bulletins de la Société Anatomique de Paris, 1878: cases reported by Jean, page 105; Carrié, pages 322, 323; Mossé, page 361; Terrillon, page 583.

The affection is not rare, as the records of the Société Anatomique show. It is observed almost exclusively in male adults, between the ages of twenty and forty-five years. It is often accompanied by the symptoms of tubercular disease in other organs, especially of pulmonary phthisis. Not unfrequently, however, the disease remains for some time limited to the genito-urinary organs, forming one of the most frequently observed exceptions to the well-known law of Louis, according to which tubercle exists in the lungs if elsewhere.

The symptoms vary according to the seat of the localizations. When the disease is limited to the kidneys, attacks of temporary hæmaturia occur early in the case. The clots of blood forming in the ureters and bladder may occasion kidney colic and dysuria. Often, however, the hæmaturia is unattended by pain. In some cases there is more or less polyuria, occurring in paroxysms. The urine becomes more or less purulent; pain and tenderness in the region of the kidney are complained of. The progress of the case is slow, and the diagnosis may remain obscure, until the disease has spread to other organs. Death ensues with uræmic symptoms resulting from the extensive destruction of the renal tissues, or else with the usual symptoms of pulmonary phthisis.

Tuberculosis of the bladder may exist by itself, according to Tapret. Among the earliest manifestations are attacks of "premonitory" hæmaturia, which, though profuse, may be unattended by pain, unless clots give rise to retention. A heavy aching or burning pain in the hypogastric region is felt; the patient complains also of pain and tenderness referred to the neck of the bladder. Acute pain attending micturition precedes and accompanies the act: the approach of a call to urinate is sudden and imperious; the starting of the stream through the canal causes sharp pain; while the urine flows the patient is comfortable, but the expulsion of the last drops, which are often bloody, is again extremely painful. The quantity of urine voided is each time very small, and the calls to urinate occur with great frequency both by day and by night. In some cases the use of the sound reveals a thickened and indurated condition of the vesical floor. The disease is of slow progress and long duration, eventuating in generalized urinary tuberculosis with renal complications, or in pulmonary disease.

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[1] Tapret, Etude sur la Tuberculose urinaire, Archives générales de Médecine, May and July, 1878; Guébhard, Etude sur la Cystite tuberculeuse, Paris, 1878; Bierry, De la Tuberculose primitive des Voies urinaires, Paris, 1878; Jean, France médicale, 1878; Reclus, Du Tubercule du Testicule, Paris, 1876.

When the prostate is the primary seat of tuberculosis, severe pain attends micturition, especially at the beginning and end of the act. Attacks of retention sometimes occur. Abscesses form and break in various directions. Fistulous tracts open into the urethra, into the rectum, or upon the perinæum around the anus. Mougin counted in one case eleven fistulæ, of which one opened into the bladder and rectum at once. Anal fistula, according to Ricord and Reclus, is principally caused by prostatic tuberculosis. A digital examination per anum affords valuable information, and reveals the existence of various alterations.[1] It is quite exceptional for the prostate to present to the finger a normal size, shape, and consistency. Usually, from the first, the organ is found to be enlarged and unsymmetrical. Its consistency is generally different from that of health; it is less elastic, giving sometimes the sensation of a bag of tallow. If the finger is carried higher up, the vesiculæ seminales are felt in the shape of a V, hard and lumpy. When acute inflammation and suppuration supervene, the parts are very tender to the touch, and a tense bag of pus may be felt, more or less blocking the rectum. The evacuation of the pus leaves a hollow depression. Finally the entire mass of the prostate may disappear, leaving hardly any trace of the organ.

When the anterior part of the urethral mucous membrane is invaded by the tubercular disease, there is a continuous purulent discharge from the meatus independently of micturition. The passage of urine causes scalding, and the introduction of instruments shows an acutely sensitive condition of the canal.

QUARTERLY MEETING OF THE RHODE ISLAND MEDICAL SOCIETY.

The regular quarterly meeting of the Rhode Island Medical Society was held in Providence on Wednesday, September 19, 1879, the president, Dr. E. T. Caswell, in the chair.

The president made brief remarks concerning the death of Dr. Sylvanus Clapp, of Pawtucket, a member of the board of censors and formerly president of the society, and of Dr. Samuel Mowry, one of the oldest members of the society. He announced that he had appointed Dr. Job Kenyon, of Warwick, to fill the place of Dr. Clapp upon the board of censors until the next annual meeting.

Dr. R. A. Bronson, of Attleboro', Mass., was introduced, and gave some reminiscences of the meetings of the Rhode Island Medical Society when he was a member, twenty-five years ago.

Dr. T. Newell, of Providence, from the library committee, gave an account of the library and building of the Boston Medical Library Association, with a sketch of its foundation and history. He stated that the association raised twelve thousand dollars by subscription among themselves and others, and has received twelve thousand volumes by donation. The members were assessed ten dollars per year. He thought that the success of the Boston association was very encouraging for the establishment of a medical library in Rhode Island. Several members of the society have promised definite contributions.

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[1] Reclus, loco citato, page 106.

The following persons were elected Fellows of the society: Dr. James E. Sullivan, of Providence, Dr. Isaac B. Cowen, of Little Compton, Dr. Lucy B. Weaver, of Providence.

Vesical Calculi. — The president gave an account of the removal of a calculus weighing one hundred and twenty-six grains from a child nine years of age, and one weighing sixty-four grains from a patient about thirty years of age. He exhibited some of the latest instruments for the treatment of stone, including Professor Bigelow's apparatus for rapid lithotrity and evacution, and described their use. In the cases reported Bigelow's method was not employed from the fact that at the time it was impossible to obtain the necessary instruments.

Revision of the Pharmacopœia. — Dr. Geo. D. Hersey, of Providence, read a paper upon The Next Revision of the Pharmacopœia. He gave a history of the previous editions, and went on to show what drugs, now in common use, of which the therapeutic value is well established, should be introduced into the next edition. He deprecated the use of proprietary preparations, which an examination of any druggist's prescription book shows to be so extensive among the profession at the present time.

Faradization. — Dr. A. G. Browning, of Providence, read a paper upon Faradization, advocating the use of this form of electricity in the treatment of muscular rheumatism. He reported cases from his own practice in confirmation of the views expressed in his paper.

The society then adjourned to the second Wednesday in December.

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BUCKNILL AND TUKE ON INSANITY.[1]

The first edition of this standard work on mental diseases appeared in 1858, the second in 1862, and the third in 1873. So rapid has been the development of psychological medicine in the past twenty years that a treatise five years old would at any time have found itself antiquated in many important respects. Especially has the last decade been prolific of discoveries in cerebral anatomy, physiology, and pathology, and, as a necessary consequence, our knowledge of insanity has grown in definiteness and extent. The law as applied to the insane has undergone frequent modifications, though still lagging in the rear of scientific advances at certain points. The authors claim, in their fourth preface, that the work is now brought up to the knowledge of the day in all particulars. This seems quite probable from a careful examination of the text. A proper balance is preserved in all branches of the main subject, and no topic appears to be unduly extended at the expense of any other. The jurisprudence of insanity is not, however, included in this volume, except to the extent of explaining methods of commitment and the relations of medical men to the English lunacy laws.

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[1] *A Manual of Psychological Medicine.* Containing the Lunacy Laws, the Nosology, Ætiology, Statistics, Description, Diagnosis, Pathology, and Treatment of Insanity, with an Appendix of Cases. By John Charles Bucknill, M. D., etc., and Daniel Hack Tuke, M. D., etc. Fourth edition. Philadelphia: Lindsay and Blakiston. 1879. 8vo, pp. 815.

A very useful chapter is that one giving a brief sketch of the various forms of insanity from a somato-ætiological point of view. The physical causes of insanity have been made the basis of a classification by Skae, which, however scientifically insufficient, has already led to considerable progress in treatment, as in syphilitic and phthisical insanity. To pathology one hundred and fifty pages are given, and the subject is discussed in the full light of the latest research, and illustrated by new cases, plates, and tables. The histological portion of this chapter is credited to Dr. J. Batty Tuke, of Edinburgh. The authors believe insanity may be caused by any disease affecting the gray matter of the convolutions; that inflammation is only indirectly a cause of it; that partial congestions and anæmias producing irregular activity in a complex series of cerebral centres of mental function are accountable for all the phenomena of insanity. Changes in the capillaries usually precede and cause abnormal cell action, though where mental disorder results from moral causes this order may be reversed. The pathological condition of either cells or capillaries is, however, immediately transferred from one to the other, on account of their intimate relations, whichever is first affected. They do not believe in merely functional disorder of the brain, or of any other organ.

The practical value of this work is greatly enhanced by the one hundred and twenty pages devoted to treatment, — a department too often abbreviated. This is considered under three heads, — the hygienic, the moral, and the medicinal, — and includes not only domestic asylum and cottage treatment for the rich and for the poor, but treatment of the special forms of insanity, as indicated by the underlying physical condition.

The division of labor between its joint authors is the same as in former editions, — Dr. Bucknill writing the chapters on Diagnosis, Pathology, and the Appendix of Cases, and Dr. Tuke those on the Lunacy Laws, Classification, Ætiology, Statistics, and Description. We have often been asked to designate the best book on insanity for general use. To those who must confine their studies to a single author we believe the last edition of Bucknill and Tuke will prove the most comprehensive and useful treatise in the English language.

T. W. F.

THE MASSACHUSETTS REFORMATORY PRISON FOR WOMEN.

In calling attention to the report of the medical officer of the Massachusetts Reformatory Prison for Women, it may be well to state that, so far as we know, it is the fourth institution of its kind officered by women. There is a small one near Indianapolis in this country, and there are two, quite large, well known, and very successful in their results, at Woking and at Fulham in England.

The internal defects in sanitary arrangements referred to consisted in insufficiently flushed hopper water-closets and no ventilation of soil-pipes. The bad odors were kept down by "disinfectants," the premises were scrupulously clean, but the tonsillitis so prevalent during the cold months was probably an indication of what we have so often said in our columns, that the destruction of stinks does not necessarily imply freedom from danger to health. The State Board of Health was consulted before the building was erected, and gave its *advice*, as the law requires, but it was not heeded then, or afterwards when the prison was occupied. However, the unfortunate condition of the whole arrangements for the disposal of the filth of the institution created a great deal of talk, and was used as a means of inducing the country members to vote for the Board of Health, Lunacy, and Charity as a "big thing" that was to remedy all such evils, although of course they did not stop to see that the law does not give to the board any really new power. The much-needed improvement is none the less going on under the new prison commission, and we hope to hear of no more cases of poisoning our prisoners with filth.

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MEDICAL EDUCATION IN NEW YORK.

In speaking recently of the progress made by the schools in improved methods of education, we were obliged to say of the largest city of the country, with its greater opportunities for clinical study, that there was not yet a single ray of light to illumine the darkness still existing there. That the question of a radical change in their system had already forced itself upon many minds was evident from the admirable address by Dr. D. B. St. John Roosa at the annual meeting of the New York State Medical Society, and other articles, which tended to efface the discouraging impression produced by Dr. Hamilton's paper last year. New Yorkers are beginning to see things as outsiders did. Dr. Roosa remarks: —

> "To-day no one of the leading medical colleges of the State is anything more than a first-class educational establishment, owned and practically controlled in all its details of financial management and appointment of professors by a body usually of seven men. They are at the same time proprietors and teachers, just as much as 'John Jones, A. M.,' is proprietor and professor in 'the famous and large boarding-school situated on the banks of the Hudson, in full view of the Catskill Mountain House and the haunts of Rip Van Winkle.' As a matter of course, the announcement and circulars of these colleges betray their private character, and offer the most flattering inducements to their patrons, while their buildings are surmounted by flag-staffs, from which float their emblazoned banners. The contrast between the announcement of medical colleges in this country and the catalogues of the universities of Vienna, Berlin, and Strassburg, with their sober, unpretentious detail of the names of teachers and the facilities open to the aspirant for medical knowledge, is not at all creditable to our sense of propriety and good taste."

Dr. Mercer, of Syracuse, and others have also pointed out the short-comings of the New York schools. The contrast, not only in the outward show, but in the substance of the curriculum, has been painfully apparent to all who have had an opportunity to compare the two systems. Happily, the Egyptian-like darkness has been suddenly dispelled by a gleam of light from Bellevue, whose faculty on September 8th passed resolutions so modifying the course of instruction as to admit of a graded system of instruction extending through three years, with final examinations at the end of each year. A matriculation examination will also be held, in which mathematics and English composition are the subjects required. At the end of the first year examinations will be held in physics, inorganic chemistry, descriptive anatomy, and materia medica, and in the second year organic and physiological chemistry, general and surgical anatomy, physiology, and therapeutics will be taught. Clinical instruction will continue during the whole course. Laboratory work is also to be a feature of the curriculum. If a candidate fails in more than one branch in the examinations for the first or the second year, he will be put back one year, but will not be required to pay more than the regular fees for the three years. The year's work will begin in the middle of September and end in March, a period of six months.

There are doubtless a great many points in this new plan of study that will cause criticism, and may require modification with further experience, but the great fact still remains that the leading New York school has given in its adhesion to the movement in favor of reform in methods of education.

Although the term has been lengthened to six months, it should not be forgotten that this is but half a year's work, and enables students who go to schools with a spring or a summer "year" to take two years' courses of lectures within a twelvemonth. Until a "year" is made to mean a year we cannot be said to have emancipated ourselves from the crudeness of old-fashioned methods. The present, however, is a moment for congratulation, which we extend most heartily to a school which, with its splendid opportunities for teaching, can afford to show its colleagues the way.

THE NEW ORLEANS SANITARY ASSOCIATION.

We have several times called attention to the excellent sanitary work that has been done in the Mississippi Valley during the past summer, and to the good results from it in the prevention of a general epidemic of yellow fever. In New Orleans, given a city of 200,000 inhabitants, thoroughly infected in 1878, with 26,000 privies so constructed as to leave each year in the soil of 4860 acres nearly 80,000 tons of solid and fluid excreta, to be disposed of by nature as best she can, and the problem of saving the inhabitants from the fate of Memphis seemed almost beyond the possibility of a solution. In our opinion it would have remained so, if it had not been for the National Board of Health and a Voluntary Sanitary Association of the leading citizens of the city, which have diffused information among the people, working with untiring activity, too, in abolishing sources of filth, so as to place New Orleans in better sanitary condition than it has been for some years. No better example is to be found of the benefits arising from this sort of coöperative action on the part of private citizens. We are glad to be able to print the following extract from one of the leading New Orleans papers, especially as it upholds our view of the relation of yellow fever to filth: —

"The Sanitary Association has, however, by no means finished the work it set out to do. Much has been accomplished, but more is still to be done, and operations will be carried on with continued energy. As soon as cold weather sets in it is proposed to clean thoroughly all the larger drainage canals, and by a system of water-pipes to flush them with fresh water from the river every twenty-four hours if needed. The operation of general cleansing will go on; all low places in the city calculated to engender disease will be filled up, and such a system organized that hereafter the work will be more easily done.

"To do all this, however, will require funds. The work is beyond value. It has demonstrated already that New Orleans can be kept healthy, and that this *cleanliness means health.* Health means *an end of quarantine restrictions*, a revival of business, and the inauguration of a new era of prosperity. These are the grand results that are to be accomplished, and they are within the reach of our people."

MEDICAL NOTES.

— In a case of stone occurring in a man about twenty-two years old, Dr. Bigelow recently removed, in one hour and seventeen minutes, a calculus, of which two fragments weighed 720 grains. There was no blood in the urine during the operation, nor any unfavorable indication afterwards; the patient rapidly convalescing. The calculus was phosphatic, but quite hard, having a small lithic nucleus. It measured 2¼ inches, and could not be grasped by a Thompson's lithotrite. It was crushed by Dr. Bigelow's lithotrite, and aspirated through a tube of the diameter of 30 French. This is, with one exception, the largest stone yet removed by the new method.

— Dr. Haussmann treats cracked nipples by applying lint soaked in a two per cent. solution of carbolic acid. The wet lint should be reapplied every two or three hours. The treatment gives instant relief from pain, and although the child continues to use the nipples, cure is established within three days.

— M. Boggs asserts that by the addition of a few drops of carbolic acid to the tincture of iodine the latter is made to act with more certainty, and will leave no stain.

— Dr. T. Grainger Stewart has discovered that when, during the administration of the tincture of the chloride of iron, functional derangements of the stomach and liver arise, with furred tongue, impaired appetite, headache, etc., these symptoms rapidly disappear upon adding one half grain of the chloride of ammonium to each minim of the tincture. He finds this combination notably useful in cases of heart disease accompanied by anæmia and debility.

— According to the *Medical Press and Circular*, diphtheria is supposed to have originated in Egypt more than two thousand years ago. It extended to Asia Minor, and in both countries prevailed five hundred years, and was called an Egyptian or Syriac disease. It next invaded Europe, appearing in Rome A. D. 320; became epidemic in Holland in 1337; extended to Paris in 1576, and again appeared there in 1771. It prevailed more extensively in France in 1818 and in 1835, in England, the United States, and Canada from 1856 to 1860, and has done so more or less ever since.

— The City Board of Health is doing a good work in providing public urinals for Boston. The increasing size of the city, and the number of country folk who daily visit it, and who have no private resort, will render this a great convenience. The women have already had accommodations in the larger parks, but the men have been obliged either to convert the hotels into urinals or to overcome their Anglo-Saxon modesty with the best grace in their power. We are not sure that some enterprising party would not make a good thing of it by a further imitation of Paris in setting up a water-closet "emporium," where for a copper one could luxuriate in all the modern conveniences.

— Dr. Starke (*Berliner klin. Wochenschrift*) recommends the use of a weak lemonade of tartaric acid before taking quinia in any form. It increases the promptness of the physiological action by the quinia, accelerates its solution, and obviates unpleasant gastric effects.

— The *Scientific American* says that the manufacture of the cream of tartar in the United States has so developed that the imports of it from France have fallen in six years from six million pounds yearly to none, the price being reduced from thirty-two to twenty-four cents per pound. Imports of citric acid from England have fallen from two hundred and fifty thousand pounds yearly to twenty-seven thousand pounds last year, and the price to about one half. As to borax, the relations have been completely reversed by the development of borax mines in Nevada. England now appears in the United States market as a buyer of the crude and refined article, having formerly been the principal seller.

— It is stated that there is at the present time direct telephone communication between the city messenger's room at the City Hall and the Massachusetts General and City Hospitals over the wires of the Bell Telephone Dispatch Company, all of which places are connected with the company's exchange system. Also, that a communication, in case of any accident, could be sent to either of the hospitals, day or night, from any of the branch offices of the company in the different parts of the city, from any of the railroad depots, most of the hotels, or from any one of the five hundred stores or offices connected with their telephone system.

PHILADELPHIA.

— Professor Gross has performed the operation of amputation at the hip-joint three times, with remarkable success. The third amputation was made September 20th, at the Jefferson Medical College Hospital, upon a case of sarcoma of the thigh, in a middle-aged man; hæmorrhage being effectually prevented by Esmarch's bandage and Pancoast's abdominal tourniquet. Lateral flaps were made, and silk ligatures were used. No antiseptic precautions. The case, a week later, was reported to the class by the operator as progressing favorably, "without having had a single bad symptom." Should this patient recover, as he is confidently expected to do, it will make the third successful case, both of the others having terminated favorably. This case will be made the subject of a communication, by Professor Gross, to the Philadelphia Academy of Surgery, at its first meeting, Monday, October 6, 1879.

There have been an unusual number of sarcomatous tumors presenting themselves recently at this hospital. Dr. S. W. Gross, on the preceding clinic day, amputated an arm at the upper third of the humerus for a sarcoma over the olecranon process; and in another case he amputated at the middle of the fore-arm for a sarcoma of the wrist. He also exhibited a life-size model made from a colored boy five years of age, who died a few days before, in whom there were a number of sarcomata located in the skull, in both humeri, in the left femur, and in the abdomen. It was a coincidence that these three cases illustrated, when microscopically examined, the three principal forms of sarcoma: the case of multiple sarcoma had small, round cells, the wrist had giant cells, and the elbow had spindle cells.

— Two cases of hypospadias, brothers, respectively fourteen and sixteen years of age, were brought to the same hospital last week, and Dr. S. W. Gross performed Dr. Physick's operation upon the elder one, cutting out a wedge-shaped piece of the corpora cavernosa, with excellent result. Operation upon the other was postponed for a few years on account of incomplete development.

— Dr. Henry Ackland, F. R. S., Professor of Medicine in the University of Oxford, President of the Council of Medical Education for Great Britain, Physician to the Prince of Wales, etc., has been the guest of Professor Gross for a few days, and witnessed the amputation at the hip-joint on Saturday. He is on his way to Baltimore, making an unofficial tour of our principal Eastern cities, and has been the recipient of marked attention, both in New York and this city.

— Dr. Edward T. Bruen, of Philadelphia, suggests the following method of deciding whether subcrepitant râles occur in the lungs or between the pleural surfaces: While the stethoscope is being applied an assistant is directed to stand on the opposite side, pass the arms around the patient's body, and, locking the fingers, firmly compress the lower portion of the chest walls. If the râles are generated by movements of the pleural surfaces, they will then disappear, but if developed within the lungs they will persist unchanged.

— The Academy of Surgery owes its origin to Professor Gross, with whom the establishment of such an organization has been a cherished idea for many years. He has been the leading spirit in all the steps that have been taken thus far; the constitution and laws of the body, prepared by him with the greatest care, were adopted essentially as he had recommended. The Academy is not yet fully organized, but very little foresight would be needed to predict its presiding officer. The membership, it is reported, will be limited to thirty, not including honorary and corresponding members. It will commence with about twenty active members.

— There is a prospect of the erection of a new hospital in Schuylkill County, in the anthracite coal region, to be called the General Miners' Hospital, the legislature having appropriated $65,000 for this purpose at its last session. A commission has been appointed, which recently made a tour of the Philadelphia hospitals, and work will be pushed forward rapidly, the site being already selected near Pottsville.

— The new State Insane Hospital at Norristown is now approaching completion, and is expected to be ready for use about the first of January, 1880.

— In a case of chronic empyema under the care of Dr. Frank Woodbury, Lessen's operation of resection of part of the ninth and tenth ribs was performed September 5th with the most satisfactory results, convalescence being now established. The patient was treated at the German Hospital, where the operation was performed by Dr. Franklin, a member of the surgical staff of the institution.

— Both of the medical schools had large classes in attendance during the preliminary course of lectures in September, and the prospects are good for a large class during the winter.

LITERARY NOTES.

— The medical society of Nova Scotia has issued a report on the preventive measures to be used in limiting the extension of diphtheria within the province. The great mortality caused by the disease and its continual existence there have caused that body to put in circulation a pamphlet for public use. The disease is regarded as highly contagious.

— The Rhode Island State Board of Health have issued as Public Health Tract No. III. a pamphlet containing an account of the most prominent symptoms of the disease, given in such a manner as to make them easily recognizable to all who may come in contact with the disease; also careful directions for disinfection.

— The Report of the Special Committee on Medical Education before the Illinois State Medical Society, by E. Ingals, M. D., chairman, is the title of a pamphlet which recommends preliminary examination, six months terms, and a five years' curriculum. This State is doing a great deal to improve the status of the profession.

— The Transactions of the Minnesota State Medical Society for 1879 contains, beside the address of the president, Dr. J. E. Finch, a number of miscellaneous articles on surgical cases, and a report on the climatology, epidemics, etc., of the State. The annual meeting, the eleventh, was held on June 17th.

— Dr. Bulkley will give a course of twenty-four lectures, free to practitioners and medical students, at the New York Hospital, on Wednesday afternoons, beginning October 8th. The lectures will be didactic and clinical, and will be elaborately illustrated.

— We have received a little pamphlet, by Dr. Douglas Graham, from A. Williams & Co., entitled the History of Massage. It was originally printed in the *Record*, and is a very entertaining account of the employment of this therapeutic measure from the time of Hippocrates to the present day. Dr. Graham has done a good deal for many years, to demonstrate the advantages of this mode of treatment and the proper way to administer it.

— The last number of the *International Review* contains an able paper by Dr. J. R. Chadwick on the study and practice of medicine by women. We recommend it to our readers, whether they may agree with him or not, as an interesting contribution to the subject.

SANTA CRUZ, CAL., IN REGARD TO HEALTH.

MR. EDITOR, — In referring to Santa Cruz as a place for invalids, I simply wish to place the facts before the profession, and leave it for them to decide what patients would be benefited by a residence, either long or short, in such a locality as this, taking it for granted that every physician who accepts the responsibility of advising has given more or less attention to the subject of climates, and their relation to hygiene, that he may advise understandingly.

Santa Cruz is near the line of the thirty-seventh degree of north latitude and one hundred and twenty-second degree west longitude. It looks out toward the south on the Bay of Monterey and the Pacific Ocean. Monterey, the ancient capital of California, at times may be dimly outlined, twenty-six miles across the bay, a little east of south. The site of the city of Santa Cruz is exceedingly diversified, consisting of bottom-land, ridges, hills, plateaus or terraces, rising by irregular yet beautiful gradations to a height of two hundred, three hundred, and five hundred feet, within a distance of one mile from the sea-beach. Still farther back we come to mountains and wild mountain scenery, the Santa Cruz range, a distinct group, one hundred miles long and twenty miles wide at the middle. In shape we may call this range lanceolate, with the point lying between the Bay of San Francisco and the Pacific Ocean, and the base resting in the Pajaro Valley. The widest section is north of Santa Cruz toward the Santa Clara Valley. Mt. Bache (or Loma Prieta of the Spaniards) is the highest point of the range, being three thousand seven hundred and ninety feet above the sea. This is the water-shed from which several creeks flow. On the south the Coralitos, Aptos, and Soquel flow into the Bay of Monterey, and the Los Gatos flows through deep cuts into the Bay of San Francisco. The San Lorenzo follows the direction of the range from the northwest, and empties into the Bay of Monterey at Santa Cruz. These streams are all mere creeks, but of steady flow, and together with their tributaries divide this mountain section into an endless variety of shapes. There are cañons, water-falls, basins, valleys, etc., in abundance. The surface of this region is generally covered with a rich soil of *débris* and alluvium, in many places very deep.

The rocks as we go downward have this order: First, conglomerate, consisting of water-worn bowlders, sand, gravel, shells, in fact, fragments of all the underlying strata. Second, bituminous shale, a soft, brittle, easily disintegrated formation, sometimes hard and flinty, with layers of sand. Petroleum and tertiary coals (lignite) abound. Third, limestone, generally crystalline, extensively used in the manufacture of excellent lime for most of the Pacific coast. A few caves have been discovered in this formation. Fourth, metamorphic gneissoid. This is exceedingly variable, occupying a large surface, and gradually running into, Fifth, granite, but not of an intensely igneous character, and only appearing in a few places.

The age of these rocks belongs to the miocene tertiary, especially on the ocean border, whilst the slope on the other side appears to run into the cretaceous age. Iron, gold, copper, and quicksilver have been found. Of the latter the New Almaden mines yield perhaps more than any other quicksilver mines in the world. These are located at the eastern foot of Mt. Bache.

There are many "mineral springs" in these mountains. Some already have a reputation for medicinal virtues. There is generally a large percentage of lime, sodium, and iron in the form of sulphates and carbonates. Some have in addition to a small quantity of soda, borax, and iron what are called "magnetic" properties, probably obtained by passing over magnetic iron ore. These latter springs are considered valuable on account of their stimulating and tonic effects. Steel implements become magnetic by remaining for a short time in the flowing water.

Soft, clear, and cold water, almost free from solutions, is abundant everywhere in this region, issuing often in large springs from the mountain sides. Aside from all other tests of climatic character, of more value than thermometer, hygrometer, wind or rain guages, is the vegetation of a country. That will tell us what the climate is now, and what it has been in ages past. Nearly all this region is covered with a luxuriant vegetation. The number of species included in this small area is comparatively very large. There are about fifty species of what might be called forest trees. Some of these trees measure twenty feet in diameter and three hundred feet in height, and are one thousand to eighteen hundred years old. A large proportion are evergreen, and they include pine, oak, poplar, willow, alder, buckthorn, dogwood, maple, buckeye, madrona, manzanita, sycamore, bay-tree, etc. These give an index to the other vegetation. As to the fruits that have been successfully grown here, I may mention the following: apple, pear, cherry, peach, plum, prune, apricot, nectarine, currant, almond, walnut (English), grape, orange, fig, olive, etc. These are of the best quality (except, perhaps, the orange, which has not been well tried) and in abundance.

The mean annual rain-fall is twenty-three inches, and the mean annual temperature is 59.5° F. December, January, and February give a mean of 52° F., July, August, and September give a mean of 62° F. With occasional exceptions, the same kind of clothing may be worn all the year without discomfort. From one third to one half more rain falls on the summits than at the sea level. Hence the springs are regular and do not become dry. The difference in season is more apparent on these summits also. Snow falls every winter more or less. Seldom at any place does the thermometer reach as low as 30° F. in the coldest weather. Vegetation of many kinds grows all the year. Humidity is great at the beach, but gradually diminishes as we pass inland; so a person may select almost any degree above saturation that may be desirable.

The wind that blows ill or good, that motion of the air, fickle and inconstant, yet so important and noteworthy to invalids, deserves particular mention in connection with this locality. From April to November we are more or less subject to the influence of the northwest trade-wind, accompanying the Japan Ocean current. It comes down the coast from the direction of the Aleutian Islands, making the circuit of Alaska in part. It carries for a long distance north of the Farallons an even temperature not much above 42° F. As it comes within the latitude of the Bay of Monterey, this air current expands more rapidly, and as its moisture has been mostly precipitated in the north, it now, by reason of expansion, takes up from the region over which it flows, from water, vegetation, and air, and carries along with it largely of the watery vapor of these southern latitudes. Hence a humid and sultry air cannot exist within reach of this air current. As the Pacific coast from the Columbia River to the Golden Gate at San Francisco is an almost closed wall, parallel with the flow of the "Japan current," having few wind gaps, the stream of air is compressed and flows with considerable rapidity. When a gate occurs the current is forced through and spreads out on either side, mingling with the land air. This motion sets up a series of eddying currents, so that when on the ocean the northwesterly wind is tossing the white-caps inland there is an opposite current mildly flowing in circuits, according to the conformation of land.

Mainly to illustrate this feature I have compiled from the coast survey and other sources a map of Santa Cruz and adjoining region. Here we see the air current flowing across the bay toward the gap made by the Salinas River. There is an opening five or six miles wide, and a valley seventy-five to one hundred miles long, and in the direction of the current. Such a conformation of coast is very rare for a long distance north or south. It gives at a glance an idea of the wind currents, and shows how a mixture of the land and sea-air takes place, forming an air which is genial, refreshing, and without the harshness of the ocean air or the oppessive heat of the interior valleys. It is an air delightful to breathe. It carries enough ozone to purify the little basins, valleys, and recesses along the coast, and has force enough to sweep away any malaria that might arise from decaying matters, and yet it is so mild as not to irritate the most sensitive lung.

There are several places between San Francisco and San Diego similarly situated, but probably none possessing the "happy mean" of wind and temperature enjoyed by the northern shore of the Bay of Monterey. On approaching it from the south or west the traveler will notice its sheltered situation. The north and northwest winds cannot reach it with much force on account of the timbered mountains. Neither is it accessible to the "siroccos" from the southeast, which at times blow very unpleasantly on the coast further south. Neither are the "tree-feathered hills, fading away tier upon tier in the far distance" (so beautifully expressed by some writer in regard to the Santa Cruz Mountains), seen further south, for there the hills and mountains generally are destitute of forests. Reasoning from these and many other considerations of like kind, the conclusion is reached that here we have a country exceedingly favorable to health, — a place, in fact, where well people may remain well, and sick people find health.

A residence of thirteen years, constantly in the practice of medicine at this place, fully confirms the theory. Disease seldom shows a persistence favored by climatic causes. Epidemics are rare and of short duration. Immediately on the coast catarrhal affections prevail at times, and consumptives with catarrhal tendencies would do better farther inland, and at a considerable elevation, say twelve hundred or two thousand feet. In the winter season, when southerly winds prevail, down near the coast is better. Sea-bathing at Santa Cruz and vicinity is most excellent in the summer season, the temperature of the water being 67° F. to 70° F. In the winter it is ten degrees colder, but many persons continue surf-bathing all the year.

Camping and out-door life is eminently satisfactory in this region. There are so many things beautiful and interesting to engage the attention of any one who has not lost all love of nature that a person is apt to lose himself and forget his ills of flesh in contemplating the flowers, the trees, the rocks, the waters, and the sky.

A compilation of the death-rate of twelve of our largest cities and towns of California (including Santa Cruz) gives a mean annual mortality of sixteen to each one thousand inhabitants. This is a favorable showing compared with the Eastern United States and cities in the Old World, where the mortality is from twenty to thirty to each one thousand. Santa Cruz with its five thousand population gives but an annual mean of a fraction over *eight.* And this population (Santa Cruz being a "health resort") includes many invalids, who come here in search of health, and as a consequence might be supposed to swell the mortality list, as is the case at other "health resorts."

This place may become an advantageous winter resort, as well as a pleasure and health resort during the summer season, for which latter it is now somewhat famous. The mild southerly winds that prevail here during the winter, often bringing showers, are always warm. They have a pretty even temperature of 62° F. at and near the beach. The air becomes colder as we ascend the mountains, at the rate of about one degree for every two hundred and fifty feet; so a person can select almost any required temperature in this region.

Some of our good physicians have striven for several years to find on this coast some particular region as a "sanitarium," — a place curative alike for all diseases. As well might they look for the fabled "fountain of youth." I do not claim that the Island of Bimini is here. Many invalids would not be benefited by coming here. The conditions are not favorable for all kinds of persons or diseases. But if there is a place that combines as many or more of the natural essentials of a health-giving and pleasure-obtaining resort as this region bordering on the northern shore of the Bay of Monterey, the person who would make it known to the world of health-seekers would deserve at least the blessings of all valetudinarians. C. L. ANDERSON, M. D.

SANTA CRUZ, CAL.

SHORT COMMUNICATIONS.

OBITUARY: DR. JOSEPH D. NICHOLS; DR. THADDEUS PHELPS.

AT the semi-annual meeting of the Bristol North District Medical Society, held at Taunton, on Thursday, 18th ult., the following preamble and resolution were unanimously adopted: —

Whereas, Since the last annual meeting of this society two estimable members of this organization have died, — Dr. Joseph D. Nichols, of Taunton, May 26, 1879, and Dr. Thaddeus Phelps, of North Attleboro, May 31, 1879, the former at the ripe age of seventy-seven, the latter aged sixty-nine, —

Resolved, That in the severance of our earthly relations with these valued professional brothers, we are parted from the long-tried and true. We mourn their loss, and would proffer our condolence and heart-felt sympathy for the afflicted relatives and friends of our deceased associates.

Voted, That a copy of this preamble and resolution be sent to each of their widows; also to the *Republican and Gazette,* of Taunton, and the Boston Medical and Surgical Journal, for publication.

OFFICIAL LIST OF CHANGES OF STATIONS AND DUTIES OF OFFICERS OF THE MEDICAL DEPARTMENT U. S. ARMY, FROM SEPTEMBER 20, 1879, TO SEPTEMBER 26, 1879.

Webster, W., major and surgeon. Relieved from duty at Fort Warren, Mass., and assigned to duty as post surgeon at Fort Preble, Me. S. O. 167, Department of the East, September 22, 1879.

Forwood, W. H., major and surgeon. Leave of absence extended two months. S. O. 218, A. G. O., September 20, 1879.

Brewer, J. W., captain and assistant surgeon. Granted leave of absence for six months on surgeon's certificate of disability. S. O. 219, A. G. O., September 22, 1879.

Tremaine, W. S., captain and assistant surgeon. So much of Par. 3, S. O. 195, August 25, 1879, from A. G. O., as relates to him is revoked. S. O. 220, A. G. O., September 23, 1879.

Kimball, J. P., captain and assistant surgeon, having reported in person at these head-quarters, is assigned to duty at Fort Sanders, Wyoming Territory. S. O. 82, Department of the Platte, September 20, 1879.

REPORTED MORTALITY FOR THE WEEK ENDING SEPTEMBER 20, 1879.

Cities.	Population estimated for July, 1879.	Reported Deaths in each.	Annual Death-Rate per 1000 during the Week.	Percentage of total Deaths from				
				The Principal "Zymotic" Diseases.	Diarrhœal Diseases.	Diphtheria and Croup.	Pneumonia.	Typhoid Fever
New York	1,085,000	501	24.08	26.55	15.57	2.59	6.39	0.60
Philadelphia	901,380	269	12.39	8.92	4.46	1.12	4.09	1.12
Brooklyn	564,400	231	21.32	28.57	13.85	8.23	3.89	0.87
Chicago	—	156	—	39.23	10.89	16.67	2.56	5.77
St. Louis	—	102	—	20.59	7.84	3.92	2.94	0.98
Baltimore	375,000	129	17.88	24.81	3.88	7.76	2.33	3.88
Boston	360,000	126	18.24	32.54	22.22	5.56	2.38	.79
Cincinnati	280,000	72	13.41	23.62	8.33	5.55	5.55	2.77
New Orleans	210,000	—	—	—	—	—	—	—
District of Columbia	170,000	69	21.16	23.17	10.15	1.45	1.45	4.34
Cleveland	160,000	47	15.32	29.79	6.38	8.51	2.13	8.51
Pittsburgh	—	52	—	50.00	5.77	34.61	7.69	5.77
Buffalo	—	—	—	—	—	—	—	—
Milwaukee	127,000	43	17.65	41.86	9.30	27.91	—	—
Providence	101,500	24	12.33	33.33	4.17	8.33	8.33	—
New Haven	60,000	27	23.47	18.52	11.11	3.70	—	3.70
Charleston	57,000	26	23.78	—	—	—	—	—
Nashville	27,000	20	38.62	35.00	20.00	5.00	—	—
Lowell	53,300	23	22.49	26.09	21.74	—	—	4.35
Worcester	52,500	20	19.86	35.00	20.00	10.00	5.00	—
Cambridge	50,000	12	12.52	66.67	58.33	8.33	—	—
Fall River	48,500	21	22.58	28.57	14.28	4.76	4.76	—
Lawrence	38,200	11	15.02	—	—	—	—	—
Lynn	34,000	11	16.87	18.18	18.18	—	18.18	—
Springfield	31,500	10	16.55	20.00	—	20.00	10.00	—
New Bedford	27,000	19	36.69	47.37	31.58	5.26	—	—
Salem	26,400	13	25.68	30.77	23.08	7.69	—	—
Somerville	23,350	6	13.40	33.33	16.67	16.67	—	—
Chelsea	20,800	5	12.54	—	—	—	—	—
Taunton	20,200	5	12.91	20.00	20.00	—	—	—
Holyoke	18,200	13	37.25	15.39	—	7.69	—	7.69
Gloucester	17,100	9	27.44	33.33	22.22	11.11	—	—
Newton	17,100	6	18.29	66.67	66.67	—	—	—
Haverhill	15,300	4	13.63	50.00	25.00	—	—	25.00
Newburyport	13,500	7	27.03	28.57	14.28	—	—	14.28
Pittsfield	12,650	11	45.34	—	—	—	—	—
Fitchburg	12.500	3	12.51	—	—	—	—	—
Milford	9,800	1	5.32	—	—	—	—	—

Two thousand one hundred and four deaths were reported: principal "zymotic" diseases 550, consumption 308, diarrhœal diseases 251, diphtheria and croup 136, pneumonia 82, bronchitis 48, scarlet fever 43, typhoid fever 41, whooping-cough 27, malarial fevers 26, cerebro-spinal meningitis 12, erysipelas seven, measles five, hydrophobia (Cleveland) one, small-pox none. From *bronchitis*, New York 20, Philadelphia and Boston six, Brooklyn five, Chicago, District of Columbia, and Pittsburgh two, St. Louis, Milwaukee, New Haven, and Pittsfield one. From *scarlet fever*, New York 14, Chicago seven, Baltimore five, Providence four, Philadelphia and Cincinnati three, Brooklyn and St. Louis two, Boston, Pittsburgh, and New Bedford one. From *whooping-cough*, New York nine, Brooklyn five, Boston and Cleveland three, Philadelphia and District of Columbia two, Baltimore, Cincinnati, and Pittsburgh one. From *malarial fevers*, New York 10, St. Louis five, Brooklyn three, Baltimore and Nashville two, Chicago, Boston, Cincinnati, and Milwaukee one. From *measles*, all the deaths were in New York. The continued reduction in diarrhœal diseases is quite great this week, as also in scarlet fever and measles, with a great increase in the mortality from diphtheria and croup. Consumption was less fatal, lung diseases more so. In the cities of Massachusetts, scarlet fever and typhoid fever caused fewer deaths, diphtheria and croup more.

The cases of yellow fever in Memphis for the week ending September 27th further declined to 63, while the deaths increased to 31. There have been 30 cases and 10 deaths reported in Morgan City up to date, and a few in Berwick's Bay. New Orleans is reported free.

For the week ending August 30th, in 149 German cities, with an estimated population of 7,552,850, the death-rate was 27.2 against 27.6 of the previous week, with an increase in scarlet fever and diarrhœal diseases and decrease in measles and typhoid fever, diphtheria remaining about the same. Three thousand nine hundred and fifty deaths were reported: diarrhœal diseases 908, consumption 395, acute lung diseases 211, diphtheria and croup 98, scarlet fever 66, whooping-cough 63, typhoid fever 46, measles 24, puerperal fever 18, typhus fever one, small-pox one. The death-rates ranged from 12.9 in Bremen to 43.8 in Görlitz; Munich 36.9; Dresden 25.3; Berlin 28.7; Hamburg 26.1; Hanover 26.6; Cologne 18.6; Frankfort 21.9. Also for the same week, Vienna 26.1; Paris 22.5.

For the week ending September 6th, in the 20 English cities and towns, with a population estimated at 7,383,999, the death-rate was 19.1 against 19.3 of the previous week. Two thousand seven hundred and nine deaths were reported: diarrhœa 293, lung diseases 143, scarlet fever 103, whooping-cough 63, measles 50, fever 41, diphtheria nine, small-pox (London) seven. The death-rates ranged from 11.5 in Portsmouth to 26.3 in Norwich; London 20.1; Brighton 16.3; Bristol 14.4; Birmingham 16.4; Liverpool 24.0; Manchester 19.0; Leeds 17.4. In Edinburgh 18, Glasgow 15, Dublin 26. In 25 Belgian cities and towns of 10,000 inhabitants and over, the death-rate was 23.4; in 22 of less size, 21.7,— diarrhœa being by far the most fatal disease, consumption coming next; whooping-cough, typhoid fever, small-pox, and measles were very prevalent, scarlet fever becoming so. No deaths were reported from diphtheria. Brussels 26.4; Antwerp 29.9; Ghent 33.9; Liege 28.4. In 21 prominent Swiss cities and towns, diarrhœa of infants was most fatal, consumption coming next; whooping-cough, scarlet fever, and measles were moderately prevalent; small-pox apparently decreasing. Geneva 14.2; Zurich 20.1; Basle 26.1.

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THE GYNÆCOLOGICAL SOCIETY OF BOSTON. — The next regular meeting of the society will be held on the first Thursday of October, at 10.30 o'clock, A. M. Paper especially communicated by Prof. F. Pippingsköld, of Helsingfors, Finland (honorary member); subject, Pregnancy and Accouchement shortly after Ovariotomy, in some Cases of which the Hydropsical Follicles of the other Ovarium were Cauterized. Profession invited.

HENRY M. FIELD, M. D., *Secretary.*

BOSTON SOCIETY FOR MEDICAL OBSERVATION. — A regular meeting of the society will be held Monday evening, October 6th, in the hall of the Medical Library Association at eight o'clock. Reader, Dr. Boardman. Subject, Some Observations on the Treatment of Uterine Displacement.

FREDERICK C. SHATTUCK, M. D., *Secretary.*

BOOKS AND PAMPHLETS RECEIVED. — Student's Pocket Medical Lexicon, giving the Correct Pronunciation and Definition of all Words and Terms in General Use in Medicine and the Collateral Sciences, with an Appendix containing a List of Poisons, etc. By Elias Longley. Philadelphia: Lindsay and Blakiston. 1879. (A. Williams & Co.)

THE BOSTON
MEDICAL AND SURGICAL JOURNAL.

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ONE HUNDRED AND FIFTY CASES OF TYPHOID FEVER.[1]

BY C. ELLERY STEDMAN, M. D.,
Visiting Physician to Boston City Hospital.

The object of this paper is to offer some practical observations on one hundred and fifty cases of typhoid fever treated in the beds on the south side of the medical wards of the City Hospital during the last three months in each of seven years ending with the 31st December, 1877. It is hoped that they may have some interest for others beside the observer, although there is little new to be noted in traversing ground so well trodden; and the number of cases is too small for generalization of much value. The experience will be given, uninflated by fancies or quotations, for what it is worth.

Some of these cases entered in the last five or ten days of my predecessor's term, but have been considered here if the patient were mainly treated by me. The few subjects of this disease who enter in December have been reckoned if the height of the fever were passed before my relief came on duty.

The *causes* of typhoid fever cannot be studied in these examples, which come from every part of the city and from all sorts and conditions of men. They are often poor people whose friends and doctor are worn out with the incessant care needed by the sufferer, and which cannot be given. Many have frightened all who have to do with them by the fury of their delirium, and are sent to the hospital to die; while some come from crowded hovels, which contribute more than one case. Others are clerks, mechanics, or servants of houses in the best situations. One maid came from Nahant, from a family who of course paid their taxes in Boston. Of late years tramps furnish an increasing contingent, as would be expected from their growing numbers. The source of the disease influences the result but little.

It is denied by the best authorities that fatigue, emotion, or destitution have to do with the ætiology of the disease, and the custom of the day is to class it among "filth diseases." From the vague stories gathered from hospital patients and their friends, it is impossible for the physician to form an idea of the origin in most of the cases admitted. In other than hospital patients it has not been made plain to me that all cases are to be referred to the poisoning of air and water with excrementitious matters. In London, increase of typhoid was contemporaneous with the completion of the main drainage scheme in 1865–1870. (Murchison.) As has been remarked in this society, typhoid fever was seldom seen in Dorchester (where the writer lives) except in the southern border, along the Neponset River, and our cases of this disease were almost all imported. There was something of an epidemic when Cochituate water was introduced without any system of drainage, and the old roads were dug up in all directions. Since that time, six or seven years ago, the tendency to fever has lessened, and last year there were scarcely any cases.

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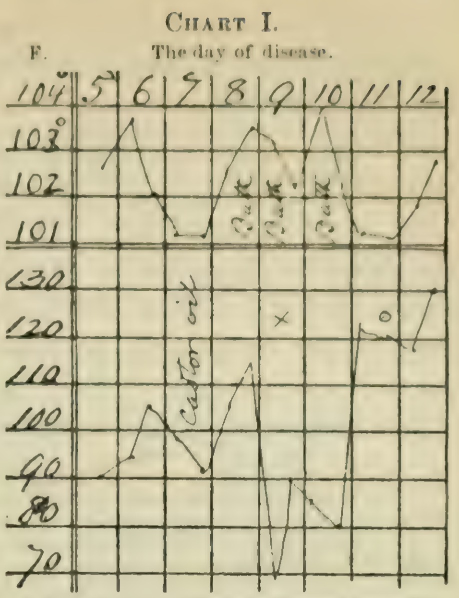
[1] Read before the Boston Society for Medical Observation, May, 1878.

Contagion is not a cause of the fever. One fatal case was that of a woman who had nursed a sister through the sickness. On the other hand, in these seven years there are found among the one hundred and fifty but four hospital servants with the disease, and only one of these (Ferris, aged fifty) was in attendance on fever patients. In five years at least no house physician or surgeon has taken fever. This disease resembles most contagious disorders in usually exempting from subsequent attacks, and when a feverish patient says he has had just such an illness before he is closely examined for evidence of tuberculosis or other malady. Large families are known in which fever seems never to occur, but it is a sickness which almost every one in New England has in childhood or youth, and its causes, except in certain epidemics, are yet to be determined.

We consider that long, hot, dry summers keep the doctors busy. We know that long, cold winters breed sickness, as mild winters do not, as most of us have found to our cost in making up last quarters' accounts. The weather records do not conform to our ideas as they should in regard to the relation between hot, dry summers and fever. The greatest number of typhoid patients admitted to the hospital was one hundred and sixty-three in 1872, when (according to tables furnished me by my friend, Dr. E. T. Caswell, of Providence) the summer was hot and wet; the smallest number, eighty-seven in 1876, which year will be remembered as hot in June and July, and cool in August and September, while the rain-fall was about the usual average. One hundred and fifty-eight were admitted in 1873, which was cool, with average rain-fall. It is not impertinent to note that patients and their friends often ascribe the illness to a definite cause: exposure to foul gases, as in opening a cess-pool, exceeding anxiety, but especially to heat, cold, or wet, sleeping out-of-doors, or watching at night.

CASE I. D. F., ward-master, aged fifty, was devoted to the fever patients. Five days ago, tired, pains, chills, fever, headache, slight abdominal pains, slight cough, mucous expectoration. *Now*, bad headache, pain in joints, tympany, gurgling. Urine normal. Sixth day, better. Seventh, "decidedly" better. One doubtful rose spot. Constipated four days. Oleum ricini, one drachm, every four hours till operation. Milk. Sponge bath. Dover's powder. Eighth, three dejections. Soreness of abdomen. Sherry, three ounces. Ninth, tremulous. Tenth, Cheyne-Stokes respiration. Eleventh, retention. Twelfth, died. No autopsy.

CHART I.

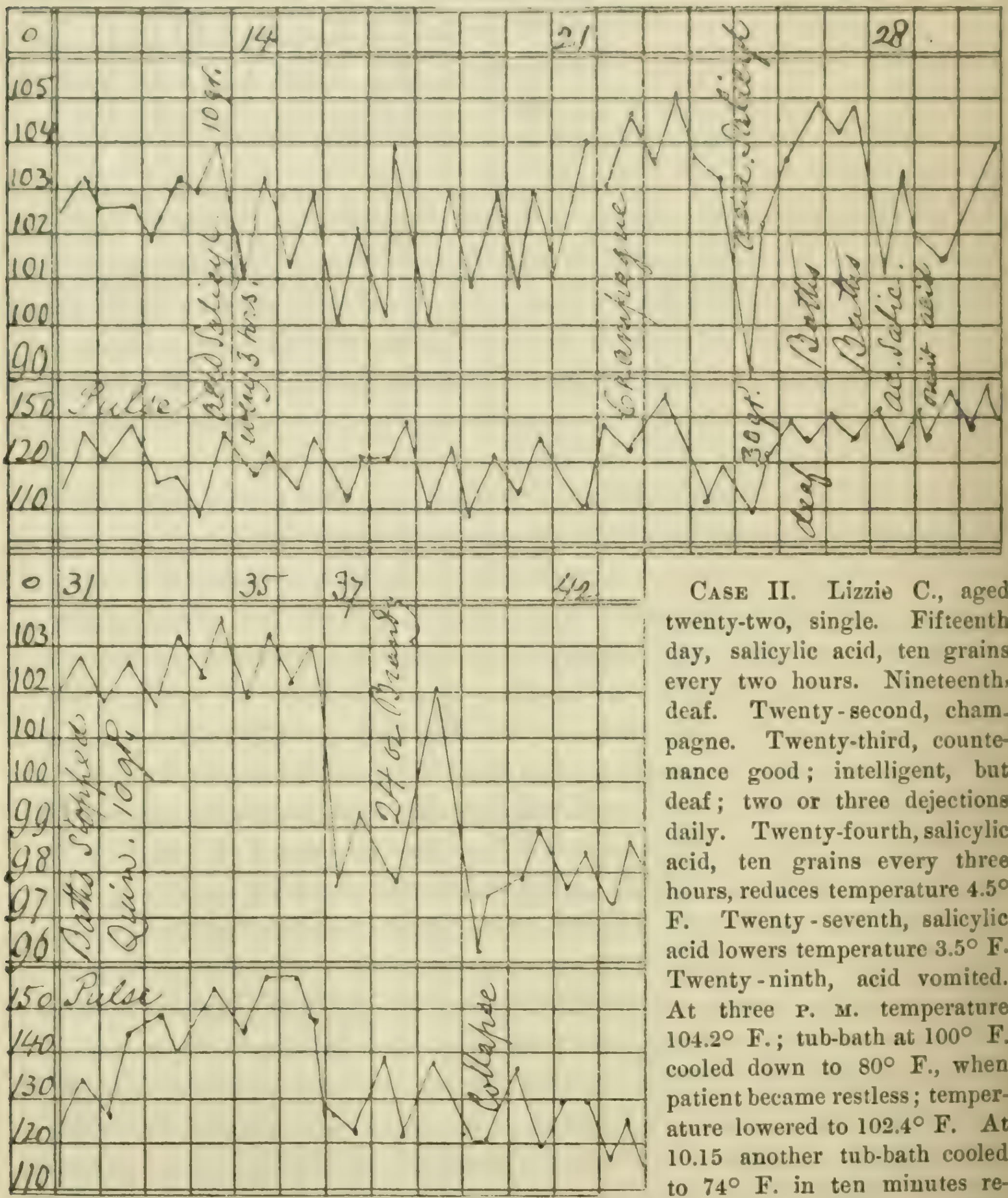


* Fall of pulse while temperature ascends.
○ Fall of temperature while pulse ascends.

The incubation of the disease we of course have no chance to watch. The writer remembers his own wretchedness for nearly a month with the prodromata of the fever. In the case of the ward-master Ferris, he affirmed that he was well till four days before he was put to bed. Our patients have to keep about their work usually a week or more before going to bed. All of us have seen cases so mild that the patient could walk about, and even do business. I saw a young man two years ago who could be kept at home only a day or two, and went to his store daily with a high temperature, headache, and diarrhœa. It is thus difficult to appreciate the length of the fever. In these cases we have tried to reckon from the initial chill, when one was reported.

Diagnosis is not touched upon in this paper. Our patients are mostly admitted after five, seven, or more days' illness, when its character is generally settled. Acute tuberculosis and meningitis simulate typhoid oftenest. The *age* of patients does not differ from the usual observations, adults and old people being less liable to this fever, because, for one reason, so many have had it once, even perhaps so mildly that it was not recognized. *Diarrhœa* is recorded in but thirty-five per cent. of all the cases, and in nearly all the fatal ones. This rate is lower than is generally quoted; the writer's experience would make it about fifty per cent. in this neighborhood. *Vomiting* happened in twenty per cent. of the cases, and has no special significance as an early sign; but when it comes on in the course of the fever, it must be questioned if it means over-feeding, peritonitis, or nephritis. *Cough* was noted in only eighteen per cent., the physical signs, if any, being those of bronchitis; pneumonia, pleurisy, and cardiac disease have representation in small proportion. *Delirium* was present in the fatal cases, and in nineteen per cent. of the recoveries. *Rose spots* are recorded in thirty-two per cent. (They have been observed in diphtheria, in non-febrile cases, and Jaccoud reports them in a case of acute tuberculosis.) Children and elderly people, as a rule, do not have them. Blue maculæ (*tâches bleuâtres*) in three cases, one fatal. *Sweating* in ten per cent. *Rachitic pains* in fifty per cent. *Epistaxis* in twenty-one per cent. The highest pulse recorded in a case of recovery is 160 on the fourteenth day, the fever turning eight days after. The highest temperature was in a man (aged forty-four), of 107° F. on the eleventh day, when his pulse was 109, the fever abating on the thirty-eighth day. The usual termination of the febrile action is by gradual fall, as is well known, but in a large majority of cases there is some day when the temperature drops two or three degrees to the normal standard, and you will see in some of the charts a fall which may be termed a crisis or defervescence, in one severe case of eight degrees.

CHART II.



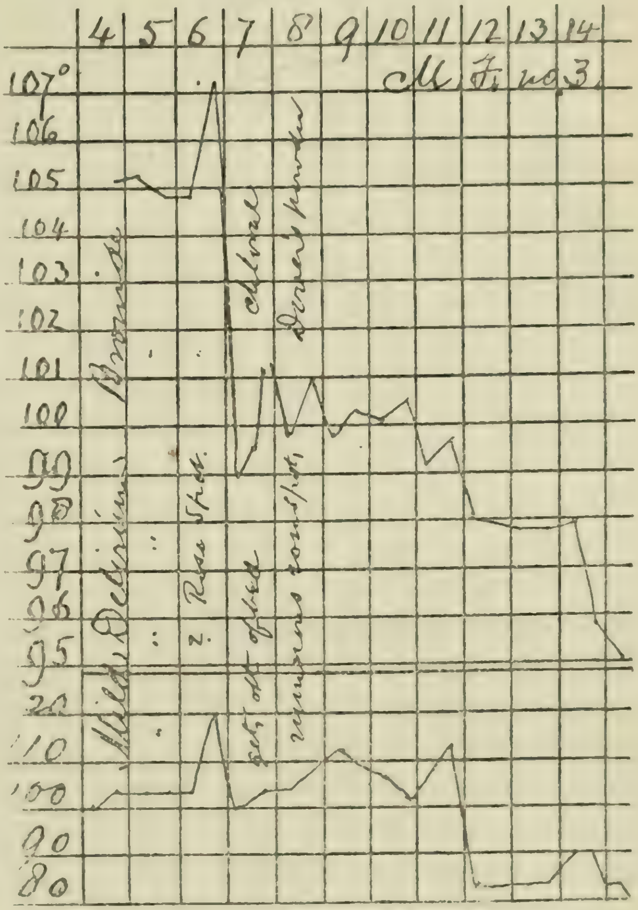
CASE II. Lizzie C., aged twenty-two, single. Fifteenth day, salicylic acid, ten grains every two hours. Nineteenth, deaf. Twenty-second, champagne. Twenty-third, countenance good; intelligent, but deaf; two or three dejections daily. Twenty-fourth, salicylic acid, ten grains every three hours, reduces temperature 4.5° F. Twenty-seventh, salicylic acid lowers temperature 3.5° F. Twenty-ninth, acid vomited. At three P. M. temperature 104.2° F.; tub-bath at 100° F. cooled down to 80° F., when patient became restless; temperature lowered to 102.4° F. At 10.15 another tub-bath cooled to 74° F. in ten minutes reduced temperature from 103.6° F. to 102° F. At 2.10 temperature 104° F., pulse 130; reduced by bath to 102.2° F. and 120. At 5.15 temperature 104.4° F., reduced by bath at 7.20 o'clock to 100.9° F. Thirty-first, stopped baths. Quinine, ten grains at one dose.

November 4th. Taking brandy, sixteen ounces daily. Involuntary micturition. Thirty eighth, subsultus. Last night collapsed; heaters to body; brandy subcutaneously. Has eighteen pints of milk and twenty-four ounces of brandy daily. Urine, specific gravity 1024; urea increased; no albumen. Discharged well on the one hundred and tenth day.

In the case of Lizzie C., this crisis was denoted by a fall of four and a half degrees, accompanied by collapse, when her life was saved by the indefatigable attention of Dr. Otis, then the house physician. The abatement of the fever happened in one case (with rose spots) on the seventh day.

The same fall is shown in Case III., M. F., aged seventeen, a private patient, where the fall was over eight degrees; in another, on the fifty-third day, while others had still longer duration. The range is so great that striking an average gives no idea of the truth, and the popular notion that "slow fever runs three weeks" is as nearly right as may be; but in telling the family of a patient the probable duration of the disease we have to guard against disappointment in those cases that exceed due bounds.

CHART III.



CASE III. May F. (private patient), aged seventeen. High temperature, low pulse. Fever ended on the twelfth day.

Quite a number of patients had tonsillitis. One fatal case resembled diphtheria. Dr. Green has examined the ears of the deaf patients, and has found all stages of inflammation in different cases. The proportion of these complications and of those having retention has not been noted.

A point worth mentioning is the frequency with which highest pulse and temperature occur in the milder cases at the time of or the day after admission; often the highest temperature on the day of entrance, and highest pulse tne next day. This is owing to the moving and excitement of the patient, and points a moral in the need of quiet for a fever case. The length of time patients stay in hospital is a matter of no value to us, except as taxpayers, although given in some tables, for so many are retained days and weeks after recovery because they have no homes to go to, or can be useful by light work in the wards.

The question of *mortality* now claims our attention. Of the 884 cases of typhoid fever admitted to this hospital in seven years, 154 died, or 17.42 per cent. Murchison's tables give the average fatality in the London Fever Hospital for twenty-three years as 17.26 per cent.; in fifteen other hospitals 17.45 per cent., that is, one in every 5¾ patients died, and this seems to be about the usual average in large hospitals. There are also reported 195 cases of febricula and a few of simple continued fever for these years, and if any or most of these can be considered mild or aborted typhoid (if there be such a thing) the results would be modified. In 1876, when typhoid was infrequent, only ten per cent. died. In 1872, which shows the most cases, the mortality was twenty per cent., confirming the dogma that when typhoid rages widest it rages worst. In the years when diarrhœa is most often a symptom are the most deaths. Some years it happens, in allotting patients, one physician gets most of the fever cases with diarrhœa, while his colleague is assigned the constipated ones, who furnish few mortal issues. But these inequalities balance in a few years.

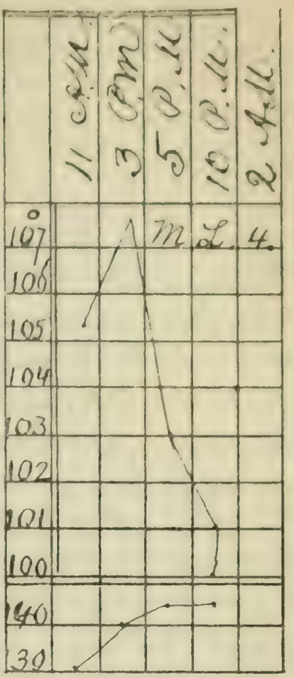
In our 150 cases there are 19 deaths, or one in 7⅞, or 12.6 per cent. The discrepancy between this table and that of all the cases treated in the hospital is owing to the small number of observations, as the results would be nearly evened in the multiplication of cases. Again, the last three months of the year (the writer's usual service), though furnishing most fever patients, is not the fatal season; as in all epidemics the worst comes first, and we notice that the cases in the hotter months of July and August, though fewer, are shorter and more intractable. Thus in 1871, during a service of four and a half months from the middle of August, there were eight deaths out of the thirty-seven cases on the south side, of which six were between the 15th of August and the 1st of October. Again, in 1874, there were twenty-four cases and three deaths, two in September and one on the 24th of October; but the term of service was only eight weeks, from 15th of September to 15th of November, when Dr. Borland refunded time loaned. Eleven more cases entered before 1st of January, and all of these recovered. The showing would of course be much more favorable if we could evade the numeration of patients moribund when admitted.

CASE IV. Michael L., laborer, had a chill on being put to bed on entrance. Livid. Abdomen distended, painful in right side; roused quickly when addressed. Said he had been ill four weeks; then incoherent. Twelve M. Groaning; subsultus; two involuntary thin stools; crying out wildly; hand seeks right iliac region; when on side lies with knees retracted. Three P. M. Less congestion in face, and left hand and arm, but still in right; pulse less strong in latter. Lungs: backs flat at bases on percussion; crepitant râles. Front: right apex dull, loud sibilant and sonorous râles pervading. Right side: fine râles. Heart sounds distant, muffled. When addressed, wild, incoherent cries; decubitus dorsal. Cannot swallow. Four P. M. Congestion greater. More quiet. Died at two A. M.

Autopsy. Both lungs very firmly adherent. At right apex thickening and a few specks of cheesy degeneration. Both lungs, but mostly the left, congested posteriorly at the bases;

parts of both lungs float. One ounce and a half of serum in pericardium; over right auricle roughness from old deposit. Abdomen, eighteen to twenty ounces sero-pus; much gas; surface of small intestine and colon much congested. Lymph on liver and abdominal walls; some fæces in abdominal cavity. In lower part of small intestine, for three and a half to four feet, Peyer's patches and solitary glands enlarged and in places ulcerated; one ulcer had eaten through all the coats, and the base was covered by peritonæum only. Another ulcer at very uppermost limit of disease had perforated, and fæces escaped through a hole one eighth of an inch in diameter.

CHART IV.



I am compelled to pass over the consideration of relapses, which have been few, none fatal (the writer has never seen in hospital or other practice a patient dying in relapse of typhoid fever); nor is there space for consideration of complications and other most interesting questions. I call attention to a few cases, remarking that the number of autopsies is very small, and no attempt will be made to discuss the pathological appearances.

The history of the H. family is worthy of record. In 1871 the traveler on the line of the New York and New England railroad saw to the east, on the marsh, just after crossing the arm of the bay over which the track runs, several lines of two-story houses, innocent of a horizontal or vertical line in their dilapidation. Their foundations were laid in trenches two feet deep, in which planks were lowered; on these planks the underpinning was laid, and the structures reared. These tenements drained into open ditches, where the tide ebbed and flowed; in a heavy rain or high tide the cellars were filled. The city had forbidden these cabins to be used for habitation, but in September, 1871, there were brought to the hospital from this place Mr. and Mrs. H. (New Englanders) and five children, sick with fever; all recovered but Ella Jane and Laura Etta, whose cases I give. Charts were not in common use in the hospital at that time: —

Typhoid Fever: Ulceration of Gall-Bladder. — Ella Jane, aged thirteen. September 19, 1871. Four weeks ago, headache, backache, tinnitus, diarrhœa. Took to her bed two days ago from cramps caused by baked beans, which pains have continued; cough began the same day; tender abdomen; rapid emaciation. On entrance, pinched and pale; eyes sunken; skin warm; abdomen dusky, tympanitic, distended, its superficial veins swollen. Hacking cough. Lies on back; knees drawn up, but she can extend them. September 21st. Diarrhœa less, abdomen not so tender, no cramps. September 22d. Died.

Autopsy in six hours, by Dr. Webber. . . . . Abdomen holds a pint and a half of yellowish serum, with much lymph; liver large, fatty, anæmic; intestines covered with lymph and loosely glued together; omentum much congested; mesenteric glands enlarged. . . . . In large intestine, solitary glands congested, and at upper part ulcerated; in small intestine, considerable ulceration of Peyer's patches, as also in lower three or four feet. Most inflammatory action in region of the gall-bladder, which was glued to the colon at junction of ascending and transverse portion. Fundus of the gall-bladder ulcerated, and small sacs seen, with bridles of mucous membrane dividing them; the adhesions being torn away, one sac was found ruptured, but it was hard to say whether this happened or not during life. No gall stones, but thick bile in the sacs.

Laura Etta, aged six. September 22, 1871. Well till six days ago, when she began to mope, and vomited at intervals; slight diarrhœa for a day or two. Abdomen tympanitic. Vomiting continued; no rose spots; now no diarrhœa. Pulse from 120 to 138; highest temperature 101° F. Died on the 10th of October.

Autopsy. Extensive adhesion of peritonæum to the liver and gall-bladder, through which were three ulcerations, as well as ulceration of its whole inside lining. One pint of sero-pus in the peritonæum. Liver pale yellow, fatty. Mesenteric glands enlarged. Peyer's patches of two and a half feet of small intestine not at all ulcerated and very little enlarged. Solitary glands not enlarged. Kidneys normal. Spleen firm.

In this connection note the case of James, aged sixteen. Returned well from a visit to Portland three weeks ago. One week after he began to feel sick; chilliness, vomiting, headache, tinnitus. On admission, diarrhœa. The liver enlarged, and below it a rounded tumor in the region of the gall-bladder, where only there is marked tenderness. Next day, pulse in the evening 104, respiration 36, temperature 104° F. Fourteen days after admission the record runs: "The tenderness in region of the gall-bladder is considerably diminished, but as other members of the family have died with perforation of the gall-bladder there is reason for anxiety." But the patient made a good recovery, and was discharged well. Similar cases are reported by Murchison (patient aged nineteen), Barthez and Rilliet (aged twelve), Budd, and others.

I submit the charts and fatal cases of (V.) F. Whall; (VI.) Mary E. T.; (VII.) Mary C.; (VIII.) T. J. D., showing short durations after admittance; (IX.) Fred M., high pulse, and not remarkable temperature at first; (X.) Frank D. W., who appeared to die without known complication.

Chart V.

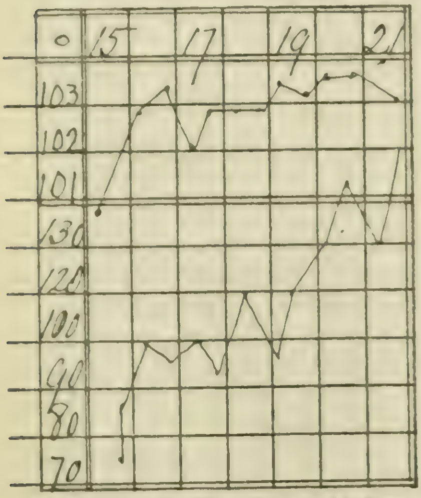
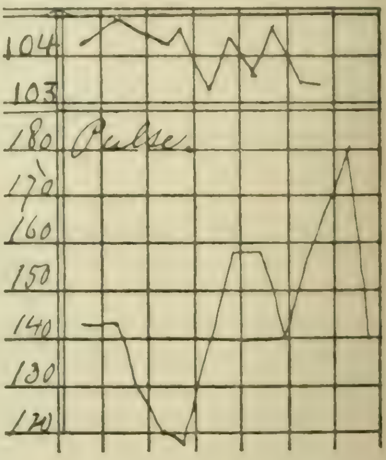


Chart VI.



Case V. F. W. Typhoid fever; fatal. Two weeks ago, chill; pain in left chest, increased by deep inspiration; cough; no sputa; severe headache; diarrhœa; deaf; dull; abdomen distended, tympanitic, painful; rose spots, *tâches bleuâtres*. Sixteenth day, delirious; more diarrhœa; tympany. Nineteenth, less diarrhœa. Died twenty-first day. No autopsy. (See Chart V.)

Case VI. Mary E. T., aged nineteen. Duration of disease unknown; fatal. Has been on Calf Island during the summer. Pain in head, *nucha*, spine, and abdomen; no diarrhœa till three days ago; very weak; has come to the city twice during illness; cough; severe pain in left hip and shoulder; emaciated; sordes; anxious; tongue hard and dry. Third day in hospital, delirium; feeds poorly; bears stimulus, but sinks steadily. Died sixth day after admission. No autopsy. (See Chart VI.)

Case VII. Mary C. Typhoid fever and pneumonia; fatal. Three weeks ago, rachitic pains; epistaxis; cough, without expectoration. Went to bed three days since; no chill, diarrhœa, nor delirium. Now, prostrated, cannot move; respiration 50; face dusky; sordes; ecchymosis of the conjunctiva, right eye; listless; abdomen tender, tympanitic; rose spots. Tub-bath. Brandy, ten ounces. Milk and lime-water. Twenty-third day, singing and talking. After three tub-baths and two pints of champagne more quiet, and inclined to sleep. Tubular respiration; very fine crepitant râles in both backs. Quinine and digitalis; jacket poultice. Twenty-sixth day, died. No autopsy. (See Chart VII.)

Chart VII.

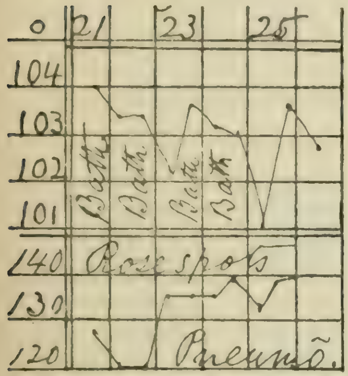
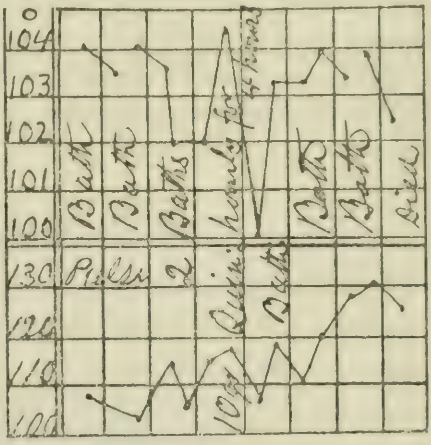


Chart VIII.

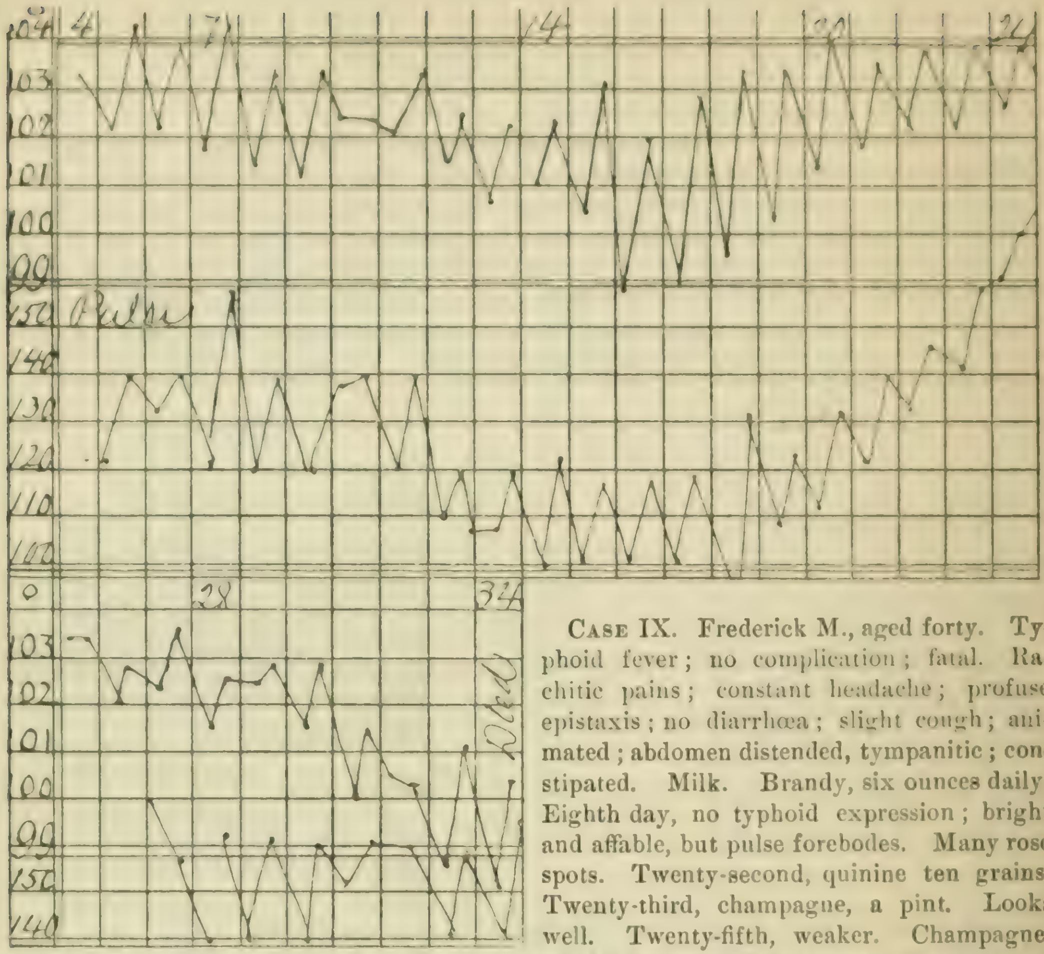


Case VIII. Thomas J. D. Typhoid fever; cardiac complication; fatal. Five days ago, nausea; chills; rachitic pains. No diarrhœa, cough, epistaxis, nor abdominal pains. Now, tired, hot, thirsty; cracked and dry tongue; mind clear. Milk. Tub-baths. Sherry, six ounces. Eighth day of disease, epistaxis. Ninth, bath out of order. Quinine, ten grains every hour for four hours. Eleventh, worse. Twelfth, dullness at apex; coarse râles; harsh, purring, presystolic murmur taking place of second sound; marked heaving of chest wall, and a distinct thrill perceptible to hand at apex. Thirteenth, died. No autopsy. (See Chart VIII.)

Only one of these cases is noted as having *intestinal hæmorrhage*, and the symptom is recorded only two or three times. Of late years no hæmorrhages have been reported. They are said to occur once in two hundred cases (Maclagan). Their fatality is not so great as used to be thought, and the worst case I ever saw was a neighbor of mine, who was blanched and collapsed by loss of blood, but made a good recovery.

Leaving important topics, which the scope of a paper like this will not permit us to glance at, I have a few words to say about the temperature and pulse. In reading cases published at this time one finds sometimes the pulse not even referred to, and the temperature made the indication for treatment, diagnosis, and prognosis. For diagnosis it is invaluable. For guidance during the disease I rely on the pulse.

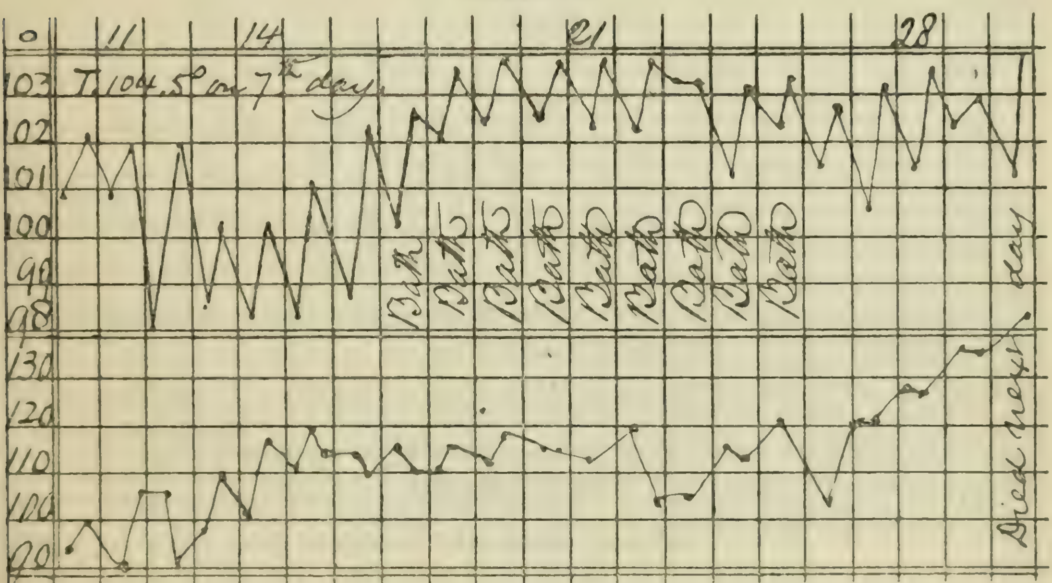
CHART IX.



CASE IX. Frederick M., aged forty. Typhoid fever; no complication; fatal. Rachitic pains; constant headache; profuse epistaxis; no diarrhœa; slight cough; animated; abdomen distended, tympanitic; constipated. Milk. Brandy, six ounces daily. Eighth day, no typhoid expression; bright and affable, but pulse forebodes. Many rose spots. Twenty-second, quinine ten grains. Twenty-third, champagne, a pint. Looks well. Twenty-fifth, weaker. Champagne, two pints. Twenty-sixth, diarrhœa; brandy, eight ounces. Twenty-seventh, muttering delirium; takes milk and beef tea well. Twenty-eighth, thin soup and pap. Thirty-first, no diarrhœa; increasing prostration. Thirty-fourth, died. No autopsy.

In these seven years the pulse has given the warning of approaching trouble, even when the temperature has signified nothing untoward. Patients die of typhoid with a slow pulse, but none of this series of one hundred and fifty has done so, nor have I seen any other case become fatal with a slow pulse. For a practical indication derived from individual experience I have to believe in the signals thrown out by the artery in the wrist above all. I have seen no patient die whose pulse has not reached 120 twenty-four or more hours before death. Cases come in unconscious, who can give no account of themselves, delirious, passing everything under them, with the thermometer in the axilla 105° F., with slight morning remissions, but if the pulse keeps at about 100 to 110 they do well. High morning temperatures are suspicious, but if they mean mischief the pulse creeps up with them. One who has seen much of the disease will anticipate a rise of the pulse as much from other signs as from the temperature. I am by no means depreciating the value of this indication, but am sure that students come to rely on it too much. The chart well prepared for the morning visit, with temperature, pulse, respirations, and dejections noted, gives assurance to the glance at a patient that is of inestimable usefulness, and saves a world of talk and time in the wards. A range of pulse from 120 upwards, it is needless to say, is often followed by recovery. In 1871, out of twenty-nine cases of recovery seven had the pulse at 120 or more, for a greater or less time. In 1872, when the thermometers appeared particularly well up to their work, the temperature reached 104° F. and 107° F. in eighteen out of twenty-three recoveries; the highest pulse counted from 120 upwards in only four cases. The influence of certain conditions in shooting up temperature and pulse at the beginning of convalescence is odd. Sitting up half an hour in one case raised the needle three or four degrees. Several patients have gone out well with a pulse at 120. One girl lived in a family where I was attending, and I had thus the advantage of watching her for some time. The symptom disappeared as she went on with her work.

Chart X.

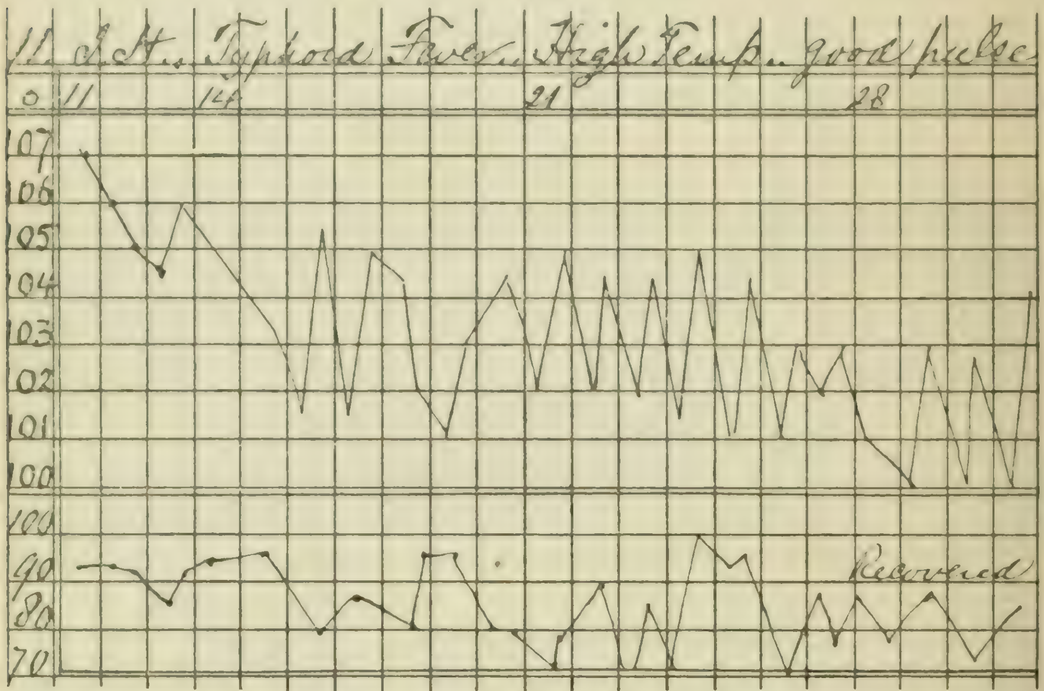


Case X. Frank D. W., aged twenty-three. Typhoid fever; no known complication; fatal.

Headache, epistaxis, no cough, bad diarrhœa, much tympany and pain, delirium. Temperature 104.5° F. on seventh day. Seemed to be doing fairly well, although the fever was profound till the twenty-ninth day, when respiration became hurried, with tendency to cyanosis. Responded to treatment, temperature falling from 104.8° to 102° F., and pulse from 144 to 130, but collapsed on thirty-first day of the disease. No autopsy.

In these one hundred and fifty cases the treatment has not been the same, the use of stimulants being invariable in severe cases. In 1871, with its thirty-seven patients and eight deaths, hydrochloric acid was uniformly used, and to some extent in 1872, when cool sponging was employed, with two deaths out of twenty-five cases. In 1873, when there were no deaths in thirteen cases, no fixed line of treatment was adopted, but sponge baths and stimuli in the worst cases. In 1874 the German plan of cold tub-baths was put in practice with some regularity, which, since the completion of the new wards in the last two years, has been perfected. In 1874 there were three deaths out of twenty-four cases; in 1875 four deaths in twenty-five; in 1876 one death in thirteen; in 1877 one death in fifteen. In these four years the mortality has been 11+ per cent. The two fatal cases in 1876 and 1877 were moribund when admitted, though one lived mysteriously several days longer than was supposed possible. In the years 1871, 1872, 1873, there were seventy-five cases and ten deaths, a percentage of 13½. Three at least of this ten could be fairly described as dying when they came in.

Chart XI.

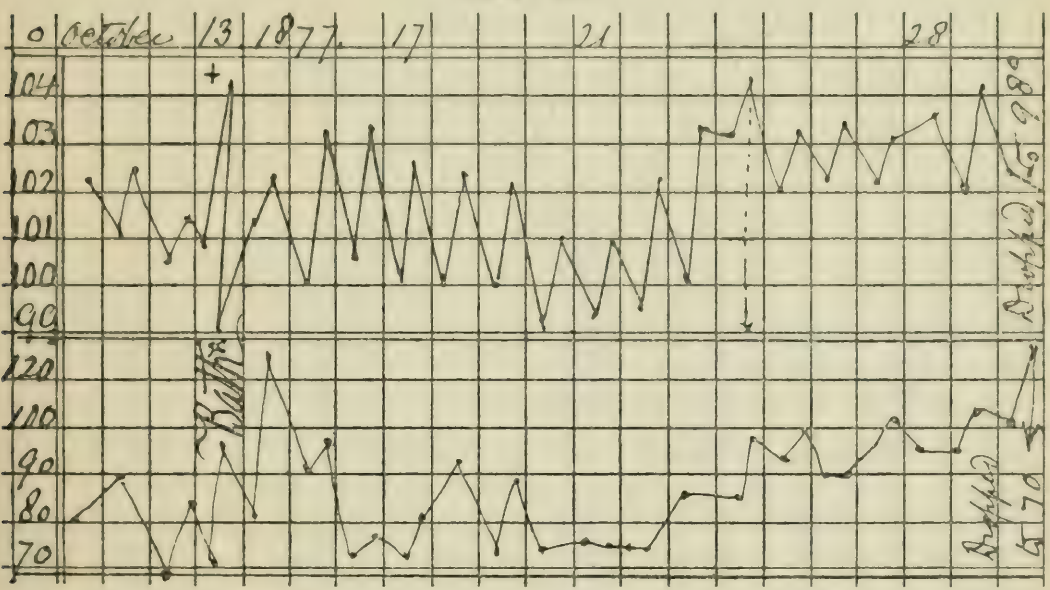


Case XI. J. H. To show high temperature, with a range of pulse so low as to allay anxiety.

With regard to the use of *cathartics* it is noticeable that most patients who enter the hospital have been purged, very many in a drastic fashion, with no special untoward result. In the case of ward-master Ferris a drachm of castor-oil was given (by his own desire) for constipation, followed by three dejections. The next day he complained of soreness; pulse and temperature rose till the fatal issue in five days after. A grave prognosis from his occupation as ward-master, with his age of fifty, had been made. He never would have recovered, but it is wished that the oil had not been given.

The use of *stimulants* is regulated by the state of the pulse; if the beats are growing in rapidity and losing in strength, if they pass 110, 115, 120, a half ounce of spirits or a glass of champagne is given. If there be from any cause doubt of the need of alcohol in a rising pulse, the dose is given with the finger on the wrist, and the influence of the drug on the circulation marked. If the pulse steadies or slows, the wine is repeated on its rising. In the case of Lizzie C. you will see that twenty-four ounces of brandy were swallowed daily for days together, during which time the face did not flush, the eyes were not suffused, the speech thickened, the tongue loaded, nor the mind clouded. Some fever patients cannot be made drunk by all the alcohol you can pour into them, while others do not bear champagne in small doses.

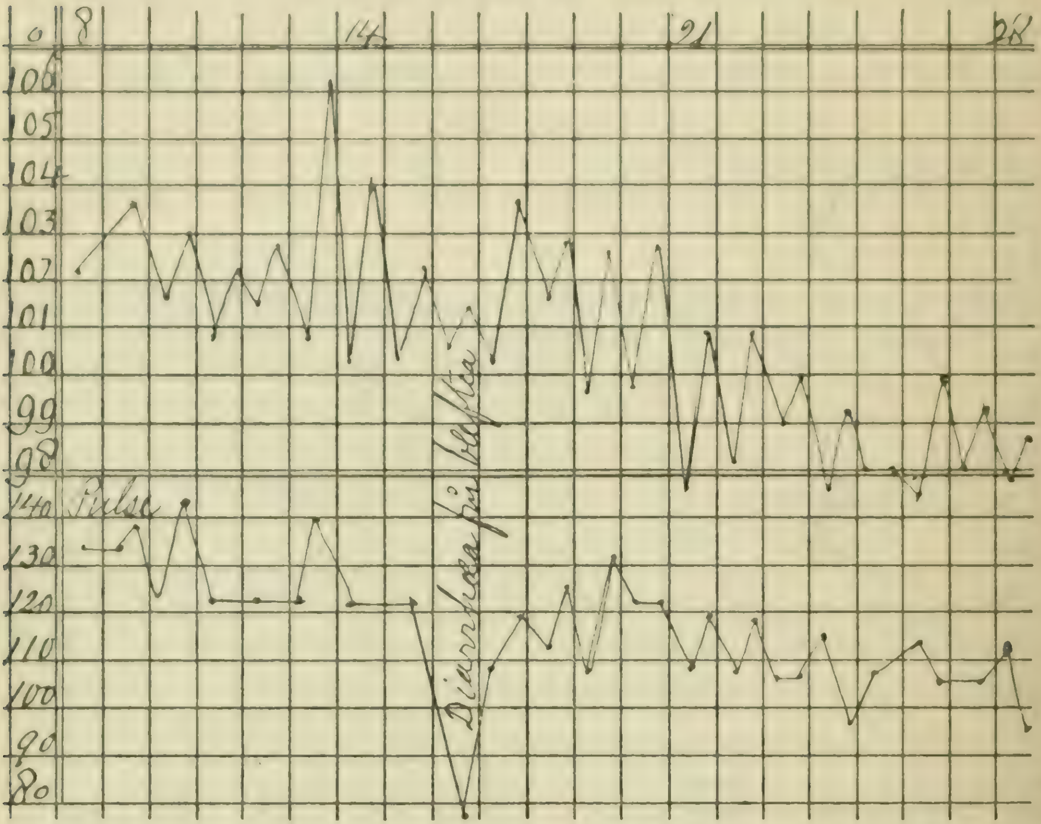
CHART XII.



CASE XII. Joseph B., aged twenty-two. Typhoid fever, with alarming nervous symptoms, but good pulse Admitted October 10, 1877. Unconscious, with no history- Eyes shut; if aroused, refuses food; inclined to indefinite self-accusation; abdomen flat, very tender, gurgling; rose spots. Twelfth day, active delirium. Twentieth, noises in head. Tub, twenty-fourth, reduced temperature from 104.6° to 99° F. Twenty-ninth, delirious; wants to rush about. Camphor one grain, opium half a grain, every four hours. Tub in evening. Looks ghastly. Thirty-first, no delirium. Amount of stimulus not recorded. Not till November 11th did he seem to "take notice."

I know very well that twelve ounces of spirits daily is said to be all that the worst case needs, but this limit is constantly and necessarily exceeded with favorable results. As the fever abates the amount is gradually lessened. The reason hard drinking like this does not make drunkards is that patients so ill as to need this heroic stimulation have their senses so much blunted as not to know whether they are drinking brandy or beef tea. When the need departs the natural indifference or distaste returns. A medical friend tells me that during his fever and convalescence he had a craving for alcohol that could hardly be satiated, and its use never affected his head. One day, on the return of health, he suddenly lost the desire, which never revisited him, except in a normal and decorous manner. Of course stimulus given when it is not needed has its usual effects. A girl was admitted one morning with high fever and rose spots, whose aspect and history did not agree with the extreme temperature and pulse. She had been treated with stimuli from the onset of the fever. All wine having been withdrawn, the pulse and temperature dropped at once to a range indicating a mild though undoubted course of fever.

Chart XIII.

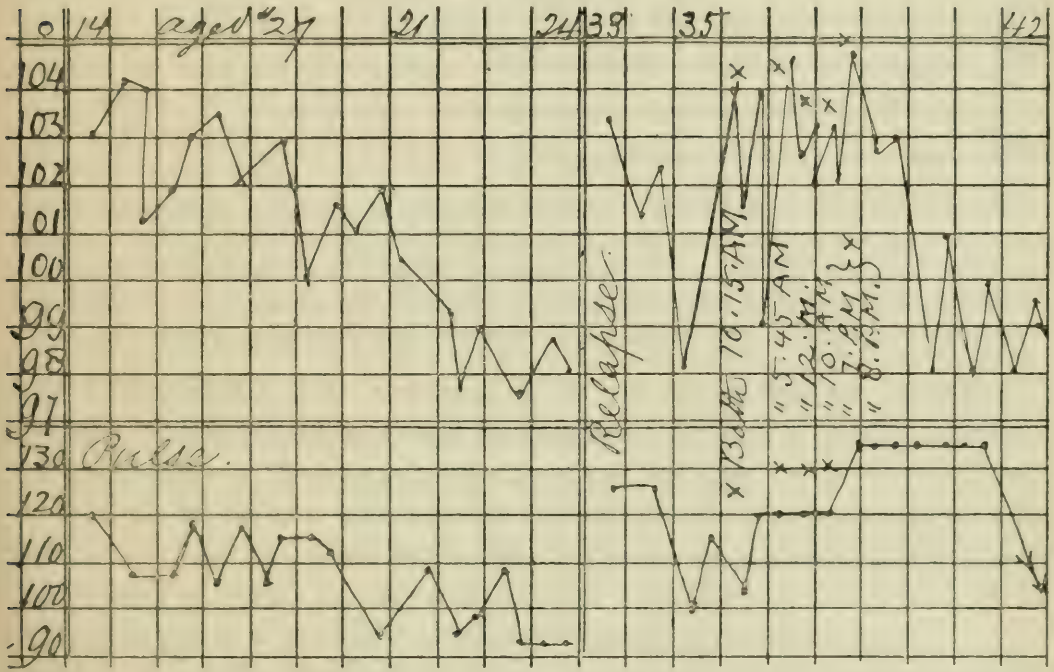


Case XIII. Alexander M., aged twelve. Typhoid fever, with high delirium. Fought against baths, and was treated by stimulants, — brandy, twelve ounces daily. Recovered, with contraction of right knee and elbow. Beef tea, given on the fifteenth day, produced diarrhœa, which lowered the pulse from 120 to 76. Sixty-three days in hospital.

Quinine and salicylic acid have been used with good effect to lower the temperature and pulse, of which, as you see in the example of Lizzie C. (Chart II.), twenty grains of quinine or thirty grains of salicylic acid are given in two doses, the latter an hour before the usual time of rise of the thermometer and pulse. Either reduces the temperature two or three degrees and the pulse five or ten beats, subtracting so much from the waste going on. I say no more of these drugs, the action of which has been demonstrated, but pass to the experience with the baths.

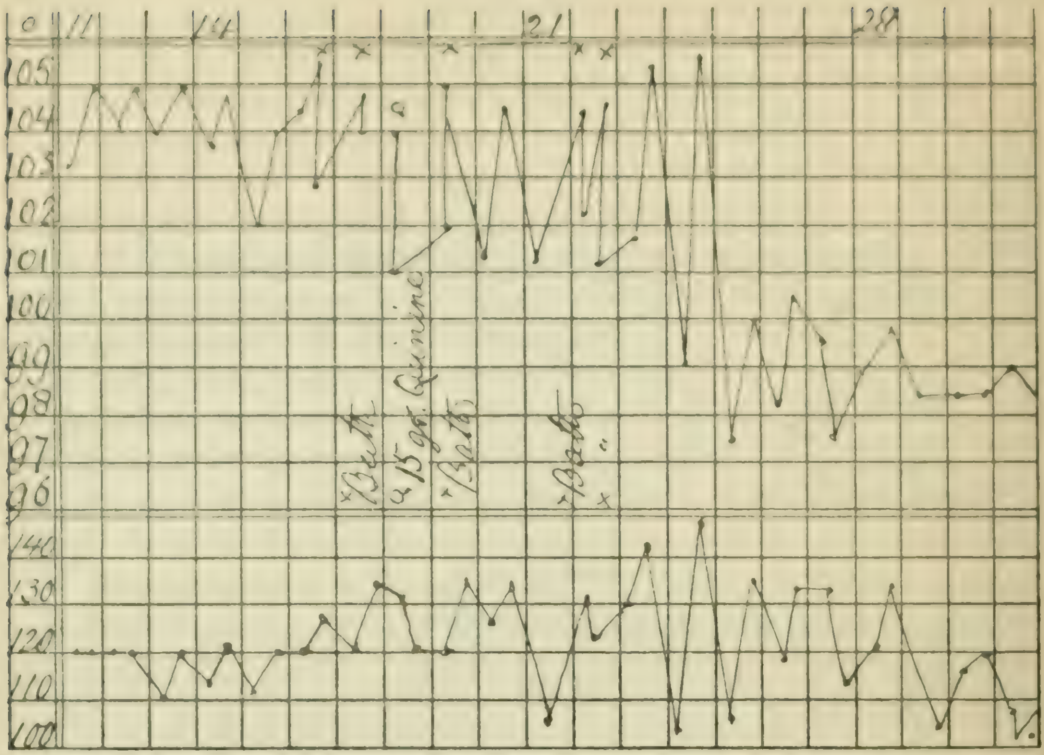
The tubs in the new wards of the City Hospital are so arranged that a walk round each is afforded, and the labor of giving a bath greatly simplified. The patient's bed can be brought along-side the tub; he is lowered on the sheet into the water if he be feeble, with the minimum of exertion. The orders are to give a bath when the temperature reaches 103° F. and the pulse is above 110, the water to be at 100° F., and lowered by a bit of hose on the cold-water tap to 80° or 70° F.; ice may be used to effect this. If he shivers, take him out and give him half an ounce of brandy; if he does not, keep him in ten to twenty minutes, when his temperature will have dropped two or three degrees, or will do so in an hour after, and the pulse lowered some ten or twenty beats. If the pulse does not come down, you may doubt if your baths are doing good; but if the patient enjoys them, as he often does, I have seen no harm follow. The febrile action will then begin to increase, and in two hours more another bath will be needed, and perhaps another. Some patients fight the baths so as to antagonize their benefit, when they are relinquished, and we have our alcohol to fall back on, with good results, as in the case of Alexander M., 1877. See Chart XIII.

CHART XIV.



CASE XIV. Josie B., aged twenty-seven. Typhoid fever. Relapse. Baths. Recovery. Rachitic pains; rose spots; deaf; stupid. Sat up twenty-sixth day. Thirty-third, relapse, with diarrhœa; deafness. Thirty-seventh, lips parched; sordes. Brandy; tub-baths. Fortieth, defervescence.

I close by following the course of treatment after the admission of the patient, and getting his history, if it can be extracted from him or his friends. Perfect quiet is insisted on, and the least kneading of the abdomen, tapping at the chest, vexing with questions, changing of linen, and fussiness that human nature will permit. In private practice the hardest thing is to get your patient let alone. (I have seen a patient with pneumonia killed in private practice by an unnecessary shifting of bed and linen.) He is made to drink a cup of milk every two hours, CHART XV.



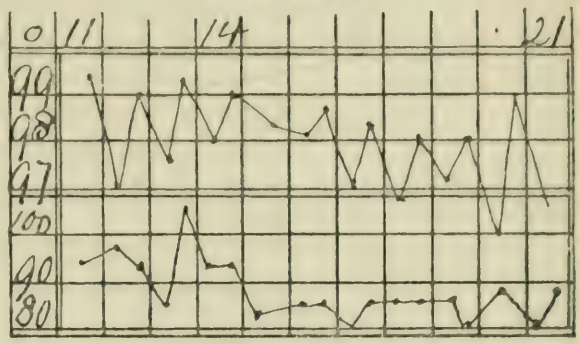
CASE XV. Katy L., aged twenty. Typhoid fever; high temperatures and pulse. Baths. Recovery. For ten days rachitic pains; diarrhœa; vigilance; abdomen full and tender; rose spots; deaf, but mind clear; slight tympany; three to five dejections. Twenty-first day, delirium; tongue hard, dry, brown; respiration jerky, but pulse better. Marked fall of temperature and pulse after baths. Defervescence (eight degrees) on twenty-fifth day.

if he knows enough to do it; if he does not, it is administered like medicine. And it may be here noticed how the attendants of patients outside the hospital will faithfully exhibit drugs, and how carefully we have to impress upon their minds the superior claims of food. A gmu of milk, which is generally drunk more readily if iced, stands by the bed, and thirst commonly induces the use of three or more pints daily. The girl who took twenty-four ounces of brandy a day also contrived to absorb eighteen pints of milk in the same time. Some patients, mostly private patients, are averse to milk, which is made more palatable by the addition of Apollinaris or other gaseous waters. Others will take a gallon a day, and leave the hospital avowing that they have had nothing to "ate" for three weeks. If our patient's pulse keeps below 110 or 115, nothing more may be needed; and a proportion of patients, whose exact number I have neglected to fix, have no other treatment. Besides the fact that beef tea is so often ill made, — and the philosophers now declare that there is "nothing in it," — it does often create diarrhœa, as seen in the chart of Alexander M. (Chart XIII.), where the flux brought the pulse down from 120 to 76, increasing the prostration.

Diarrhœa requires first the bed-pan. It may seem trivial to mention this, but if one takes it for granted that the patient outside a hospital is using one, he may find that a dangerous waste of tissue and strength is going on from the patient's rising to use the vessel. The symptom should be controlled if it amounts to more than three operations daily — which is all I wish the patient to have — by the use of Harley's pill of one grain of opium and a quarter of a grain of sulphate of copper every second operation.

Case XVI. Abby G., aged thirty-two. Typhoid fever, with very low range and marked symptoms. Bed ten days before admission. Rose spots; sordes; tympany; tenderness of abdomen.

Chart XVI.

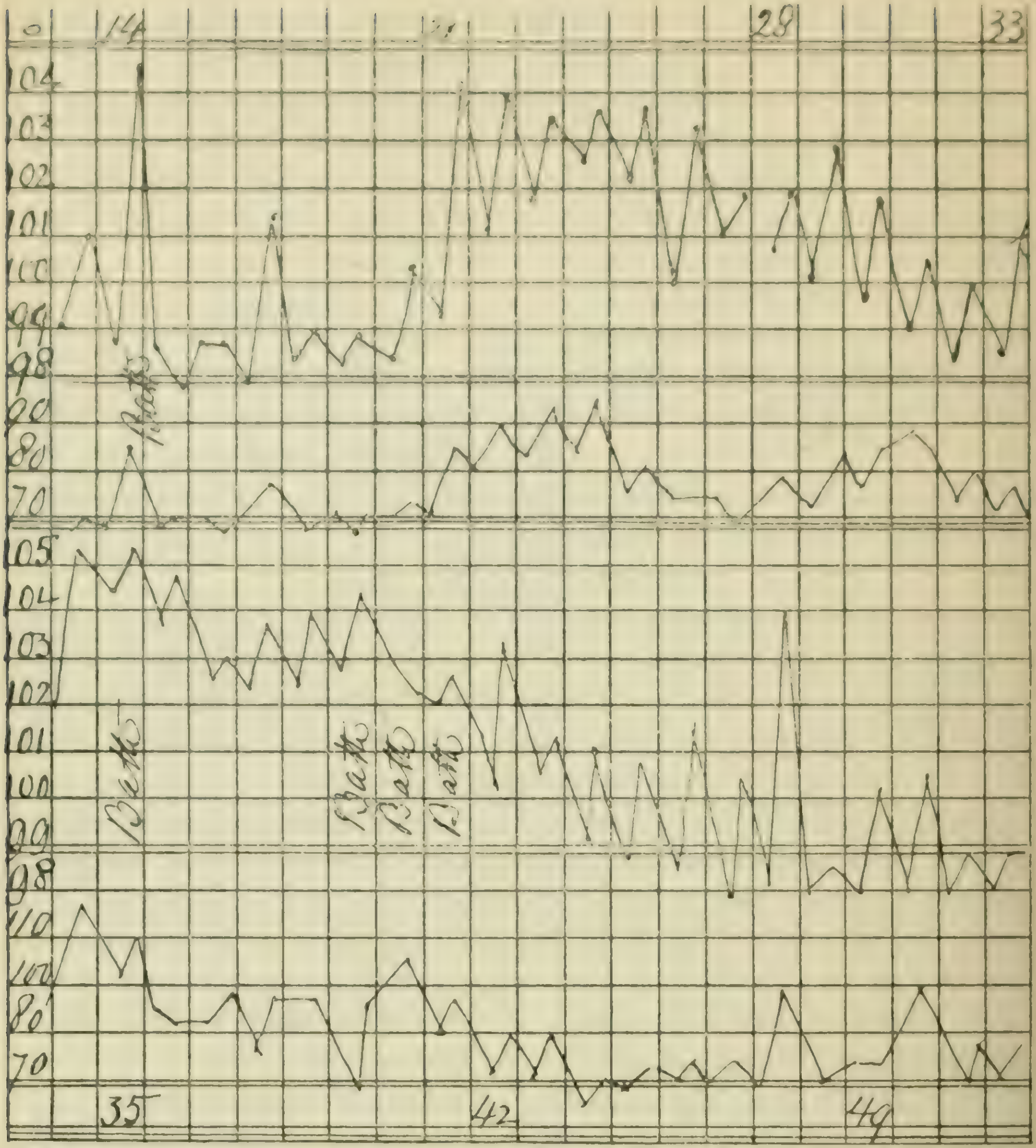


If the patient sleeps fairly, a mild delirium requires no treatment; if any is necessary, Graves's pill of opium and camphor is often serviceable; his prescription of opium and antimony for furious delirium I have used, but think baths and stimulus answer better. With delirium comes vigilance, which may be palliated by a sponge bath or a glass of wine, a Dover's powder if the skin is very dry, ten or fifteen grains of chloral, or forty grains of bromide of potassium. Fierce delirium sometimes requires restraint, and if baths and alcohol be not required by other symptoms, then fifteen grains of chloral, with thirty or more of bromide of potassium, repeated every two hours, are frequently of use. I have had to attack intolerable headache simulating meningitis with a subcutaneous injection of one third of a grain of morphia.

Temperature and pulse ascending, the baths, stimulus, salicylic acid, or quinine come into play, according to circumstances and the physicians' judgment.

Meteorism is exceedingly troublesome at times, for which I have used turpentine by the mouth and by rectum, with less satisfaction than authorities promise; its application as a stupe is quite as useful; its great advantage at the time when the tongue cleans in flakes I have not observed, because I have thought other stimulus more palatable and efficient. A typhoid patient requiring aspiration of abdominal gas is ordinarily too far gone, I suspect, for a favorable result, but the operation may afford comfort. If cough is annoying, and does not proceed from serious trouble in the lung, the cough mixture known as Dr. Bowditch's relieves it. For epistaxis in fever, I have had to plug the nares from behind twice in consultation, but not in hospital. As the patient convalesces he is allowed light puddings, next soup and bread, when he begins to tease for food. If the temperature has dropped to normal

CHART XVII.



CASE XVII. John G. Typhoid fever, phlebitis of left leg. Did well till thirty-fourth day. Rose spots and blue maculæ. No diarrhœa. From twenty-first to twenty-fifth day high morning temperature, but good pulse; normal on thirty-first evening. On thirty-fourth both rose high, with symptoms of phlebitis. Two or three other cases in the one hundred and fifty; all did well.[1] Maclagan once in two hundred cases. In hospital sixty-two days.

for two days, with clean tongue and flat belly, and the pulse keeps up, it is the pulse of weakness, and calls for solid food and wine. A bit of steak given too early, sitting up too soon or a few minutes too long, may send temperature and pulse flying upwards, and to make haste slowly is the best policy. Aitken says in the largest capitals that a soldier is not fit for duty under four months after an attack of typhoid fever. Few of our cases have as much law given them as that, and one of the most trying duties is that of discharging patients who are well, but not strong enough to go to work. Some women are taken care of by St. Luke's Home for Convalescents, which we wish was able to double its capacity, and receive men as well as women.

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[1] See Murchison, Continued Fevers, page 195.

CASE XVIII. Nelly P. Typhoid fever. Abortion, seventeenth day. Recovery. Began with general pains. Second day, vomiting and diarrhœa. Catamenia absent three months. "Is not pregnant," but had vomiting six weeks after menses stopped; breasts point to pregnancy. Thirteenth, tongue cleaning in flakes. Sixteenth, rose spots. Seventeenth, chill. "Turns have appeared." Uterus enlarged; os patulous. Eighteenth, waters broke at three P. M.; patient surprised by finding a fœtus in bed. Placenta retained without hæmorrhage; removed on the twentieth. Fever gone on the twenty-fifth. Similar case in private practice did as well.

CHART XVIII.

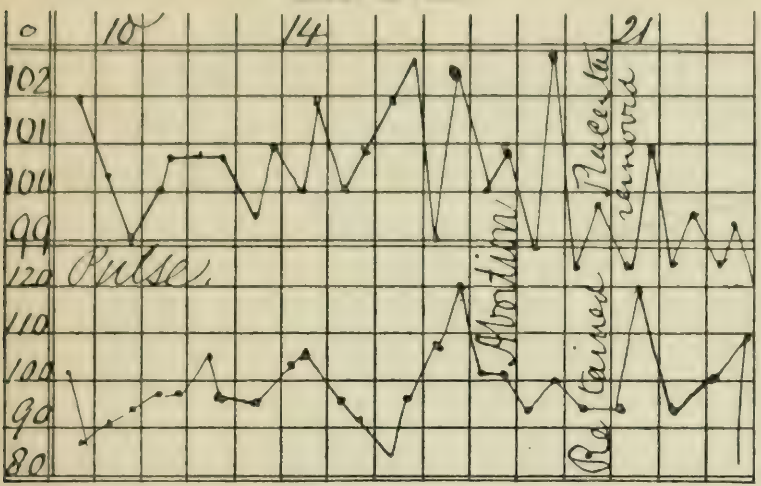
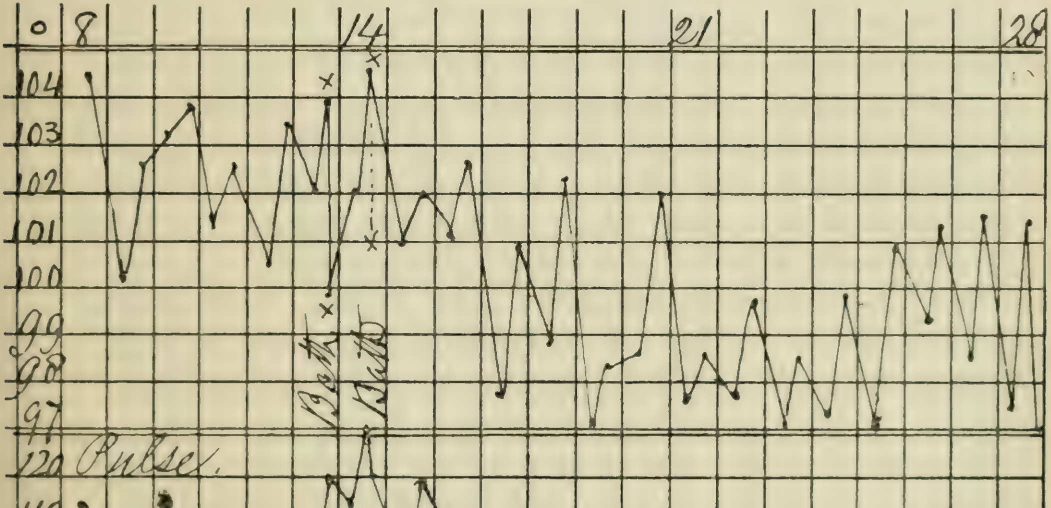


CHART XIX.



CASE XIX. John M., aged twenty-two. Typhoid fever. Baths. Recovery. Delirious; rose spots. Tenth day, walks at night and defecates on floor. Twelfth, teaming all night. Thirteenth, tub at eight P. M. reduces temperature from 104° to 100° F. Fourteenth, pulse dicrotic. Brandy, half an ounce every two hours. Tub at six reduces temperature from 104.8° to 102.5° F., and pulse from 130 to 120. Fifteenth, delirious; tries to get out of bed. Eighteenth, mind clearing, and clamors for a good dinner; free sweating.

REPORT OF EIGHT CASES OF UTERINE FIBROIDS, WITH REMARKS UPON THE SAME.

BY A. VAN DERVEER M. D.,

Professor of the Principles and Practice of Surgery in the Albany Medical College, Attending Surgeon to the Albany and St. Peter's Hospitals, Corresponding Member of the Gynæcological Society of Boston, etc.

CASE IV. *Submucous Fibroid weighing Two Ounces and One and One Half Drachms (Grams Sixty-Eight) removed by Ecraseur.* — May 21, 1878, I was called by Drs. Beebe and H. H. Smith, of Sheffield, Mass., to operate in a case of uterine fibroid, giving the following history: —

Mrs. S. S., aged fifty, married twenty-seven years, has four children, the age of the eldest being twenty-three years, and of the youngest fourteen years. She commenced to menstruate at the age of twelve. Was in good health up to six years ago, when she began to flow more than usual, a condition which continued until three years ago, when she was relieved by Dr. Smith of a small polypus, it being cut away by the scissors. After this her periods became normal and regular, and continued so for nearly a year, when increased flow, both menorrhagic and metrorrhagic, came on, and has continued up to the present time. She is now much exhausted, and very pale and weak. She seldom has a rest of more than eight days from the flow, and even then there is a severe leucorrhœa. An examination per vaginam revealed the os quite well dilated, and a uterine fibroid of the size of a turkey's egg more than half protruding through the lips. She was given ether, placed on her left side, Sims's speculum used, and without much trouble the chain of the écraseur was passed up into the uterus and around the tumor, which was easily removed, the entire operation lasting not over twenty minutes. No hæmorrhage followed. Mrs. S. had no unpleasant symptoms, but made a rapid recovery, and is now, January 4, 1879, in excellent health. Weight of tumor was two ounces and one and one half drachms (grams sixty-eight).

Remarks. In this case, as also in Case V., the écraseur was probably the best instrument that could have been used; and yet I must confess that there was in my mind at times a doubt as to whether it was not engaging a portion of the uterine walls.

CASE V. *Submucous Fibroid weighing Two Ounces (Grams Sixty-Two) removed by Ecraseur.* — Mrs. F., aged thirty-nine, married, and mother of three children, all dead. Her health has generally been good, with the exception that since the birth of her first child she has suffered from hæmorrhoids. Three years ago I operated, ligating three internal and cutting off two external piles. Since then her rectum has been more comfortable. At about that time, however, she observed a marked

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[1] Concluded from page 472.

increase in the menstrual flow, by which her usual period was lengthened from three to five days. This condition continued, becoming gradually worse with each month, until at the time she consulted me, in January, 1877, she was having but a few days' rest. At this date I insisted upon making a careful examination of her case, and found, situated in the posterior wall of the uterus, a submucous fibroid, which caused decided retroversion. The uterine probe passed to the depth of three and one half inches (eighty-nine mm.). She was ordered to keep perfectly quiet at the beginning of her menstruation, a mixture of arom. sulph. acid with elixir cinch. being given internally. The bowels, which were constipated, were to be moved by means of an enema. She continued quite comfortable until June, when she had retention of urine, for the relief of which I was compelled to introduce the catheter. I now tried the use of the Scattergood pessary, which afforded her relief for about three months, when it became painful, so that it could not be worn. At this time, also, I ordered to be taken, at the end of the fifth day of her flow, gallic acid, three grains, every two hours, to see if it would control the hæmorrhage. This it really seemed to do, and she was quite easy until November 20th, when she had another retention of urine. From an examination made at this time it was very evident that the tumor was increasing in size. The patient was becoming quite apprehensive as to how her case would terminate. She was growing pale, was weak, and looked badly. A more tonic course of treatment was now attempted. Her condition, however, was one of anxiety, and in the latter part of January, 1878, she had a very bad attack of constipation of the bowels, together with retention of urine. The catheter had to be used for the space of ten days. I now ordered her twenty drops of Squibb's fluid extract of ergot three times daily. This she bore very well for ten days, when it caused so much nausea that she could not continue it longer. A sponge tent was then introduced, and a careful exploration of the uterine cavity revealed a fibroid deemed to be somewhat larger than a hen's egg. An operation was now encouraged, but the patient was so very weak that the husband was unwilling to give his consent. The same general course of tonic treatment was continued, and by March 10, 1878, she had so improved that I induced her to begin to take one grain (gram 0.065) aqueous extract of ergot (Squibb's) three to four times daily. This her stomach bore well, and by the 25th I again made use of the tents, and on the 31st, assisted by Dr. N. L. Snow, I operated for the removal of the tumor. The patient, having been etherized, was placed upon her left side, and Sims's speculum used. The mouth of the uterus being well open, I succeeded in getting the chain of the écraseur about the tumor, and removed it. There was some hæmorrhage, which was controlled, however, in a few hours. The weight of the tumor was a trifle more than two ounces (grams sixty-two).

The patient made an uninterrupted recovery, not having a single unpleasant symptom. Injections of carbolized water were used for a month, and quinine and iron for three months. She is now, February 1, 1879, in perfect health, robust, ruddy, and in usual flesh. Menstruation is as regular and normal as when a girl. No constipation, no bladder trouble.

CASE VI. *Submucous Fibroid weighing nearly Two Pounds* (0.9 *kilos.*) *removed by Thomas's Serrated Spoon and Small Obstetric Forceps.* — Mrs. V., aged fifty, has been married seven years, but has never been pregnant. In the spring of 1874 she first noticed an irregularity in her menses, and for the following nine months did not flow more than three or four times. During the winter of 1875 she flowed frequently and profusely. After that she flowed but once a year until January, 1878, when she had severe flooding, and from that time until July 21, 1878, she had very little rest. Up to this time she supposed she was passing her change of life, and gave little thought to her condition. It was at this date that I first saw her. She was very anæmic, pulse 96, skin puffy, nails on pressure showing but little blood in the system. She was easily exhausted, being scarcely able to walk up a single flight of stairs, and when lying down her respiration was very rapid. For six weeks she had been flowing constantly. Urine normal. On placing my hand over the hypogastric region a hard tumor could be felt. Suspicion of a uterine tumor being aroused, the patient became somewhat frightened, and declined having any farther examination made. During the past year she has had considerable trouble in passing urine ; bowels, however, were regular. Her family record is good. I ordered her to take alternately of gallic acid and ergot, and on the 31st she was more comfortable ; flowing had lessened somewhat, and she was more willing to have an examination made of her case. Presenting at the os uteri could be felt a submucous fibroid attached to the anterior wall and freely movable with the uterus by bimanual examination. A uterine probe passed well around the tumor posteriorly, the uterine cavity measuring four and a half inches (one hundred and fourteen mm.). Her condition was now made known to her, and an operation advised. There was no offensive discharge from the vagina, but the patient was very much exhausted upon completion of the examination. She was given stimulants moderately, quinine and extract of ergot ; also as good a diet as her stomach would bear. On August 8th, her condition being as good as could be expected, uterine contractions quite decided, pressing the tumor well out, and the lips of the uterus being dilatable, I proceeded to operate, assisted by Drs. W. H. Bailey and N. L. Snow and medical student Wicker. The patient was given ether, and placed in the position for lithotomy. Having recently procured one of Prof. T. G. Thomas's serrated spoons, I determined to make use of it. I found it of great service, and mainly by its use succeeded in enucleating and bringing the tumor down into the cavity of the vagina. Some time was now lost in trying to deliver the tumor by means of a small obstetric forceps. I was finally compelled, however, to cut into the tumor and bring it away in pieces. The operation lasted an hour, the patient being very much exhausted. She was given hypodermic injections of whisky, placed in bed, bottles of hot water put about her, and diffusible stimulants given as soon as she could swallow. She passed a very restless night, but was conscious, although she was extremely weak the next day (August 9th). The weight of the tumor was nearly two pounds (kilogram 0.9).

It is not necessary to give the history of Mrs. V.'s recovery minutely. For two weeks she remained very feeble, temperature ranging from 99.5° to 104° F., and pulse being some days 120 to 130. During the third week she was attacked with a severe diarrhœa, which, however, yielded to treatment by Drs. Bailey and Snow during my absence from the city on a vacation. At the end of the fourth week she began to improve, and by January 1, 1879, had made a good recovery. At present, February 1st, the uterus appears normal and is well contracted. There is no discharge from the vagina, but the injections of carbolized water are still being used. She is much stronger than she had been for years previous to the operation, and is getting a good color. Her urine passes in a normal manner, and the bowels are regular. She has had no flow since the operation.

Remarks. This case demonstrated to my satisfaction that Dr. Thomas had not claimed too much for his new instrument — the serrated spoon — touching its usefulness in the removal of submucous uterine fibroids. It gave me a feeling of safety in the enucleation of the tumor that was decidedly satisfactory. I am prompt to say, when considering the condition of Mrs. V. previous to the operation, that I have rarely done surgical work where the result seemed so exceedingly gratifying.

CASE VII. *Interstitial Fibroid disappearing by Absorption.* — January 1, 1874, I was called by Drs. Crounse and Barton, of Knowersville, to see Mrs. C., who had been confined about ten hours previously, and was now suffering from retention of the placenta, accompanied by severe flooding. Passing my hand up into the uterus I found the placenta attached to the fundus and posterior wall, and with no little effort succeeded in removing it entire. On withdrawing my hand I was somewhat startled by coming in contact with a hard substance situated in the anterior wall near the fundus uteri. A rather hasty examination led me to believe it was an interstitial fibroid. The patient made a good recovery, and my opinion regarding the tumor was confirmed by a careful examination made three months later. Mrs. C. gave the following history: She was aged thirty-five, married, and had borne five children, four at full term and one premature delivery at seven months. She had been in fair health, and when menstruating noticed no irregularity. She made a slow but good recovery from this sickness. Three months after, I could make out the location of an interstitial fibroid situated in the anterior wall of the uterus, and of about the size of an ordinary orange. Nine months later Dr. Barton, who had examined the case with me previously, made an examination, and thought the tumor had not changed much. In the winter of 1877 she became pregnant again, a condition over which she was very much alarmed, thinking continually of the tumor, and believing she would surely die in confinement. At the end of the sixth month, without any apparent cause, she had an easy, normal, premature delivery, after which, on careful examination, Dr. Barton assured me he could find no trace of the former fibroid, nor has he since been able to do so. Her health at the present time, February 1st, is good.

Remarks. The history of this case, I think, shows what, it is thought, may be possible, namely, that certain forms of uterine fibroids will at times be absorbed, nature disposing of them in a manner that to her seems best.

Case VIII. *Uterine Polypus removed by Long Serrated Scissors.* — August 8, 1878, I was requested by Dr. W. H. Bailey to see Miss S., aged forty-two, and remove a uterine polypus which was protruding into the vagina and giving the patient great annoyance. She had been irregular in her menstruation for nearly three years, but for six months she had suffered at times from severe flooding and a constant ichorous leucorrhœa of an offensive odor. Placing the patient on her left side, and using Sims's speculum and the long, slender, serrated scissors, we had little trouble in bringing away a polypus three inches (seventy-six mm.) in length and weighing about two drachms (grams 7.776). In her recovery she became regular in her menstruation, and was relieved of the unpleasant leucorrhœa.

Remarks. This case shows the necessity of making a careful examination in cases where the symptoms so strongly indicate uterine trouble, even though the patients, as in this instance, yield a tardy and reluctant consent. It also demonstrates to my mind that the serrated scissors in such cases are one of the best instruments for doing the operation. Of course the case is recognized as one of the simplest of polypi, yet the patient had been suffering the keenest anxiety through the belief that she had a cancer, or something else equally serious.

PROCEEDINGS OF THE OBSTETRICAL SOCIETY OF BOSTON.

C. W. SWAN, M. D., SECRETARY.

JANUARY 12, 1878. *Accidental Intra-Uterine Injection.* — DR. ABBOT reported two cases in which an injection intended for the vagina was probably carried into the uterus, and perhaps farther. In one case the patient had chronic prolapsus uteri, for which a sponge saturated with a weak solution of carbolic acid was kept in the vagina, supported by an external bandage. She also used a decoction of oak bark two or three times a day as a vaginal wash. On a recent occasion, being summoned in haste, Dr. Abbot found his patient suffering from spasmodic uterine pain of most intense character, which was increased by any attempt to move. There was extreme tenderness in the region of the uterus, with considerable abdominal distention. The attack followed immediately an injection in which the rectal pipe of a Davidson's syringe had been used, and a direct and forcible stream had been thrown up which had probably in part entered the uterus, and may have penetrated beyond to the abdominal cavity. She was quieted by opiates, the next day was a good deal relieved, and in the course of three or four days the pain gradually subsided. The second case was that of a domestic, who, having raised herself upon the kitchen sink, proceeded to administer to herself a vaginal injection of a solution of tannin. The result was a sudden seizure of pain in the uterine region, so violent that she threw herself upon the floor, where she lay when Dr. Abbot was called to her. She said she could not move, and she was with difficulty got to bed upon the floor above, where she underwent a marked attack of pelvic peritonitis. During three or four days she was quite severely sick, and she was confined to her bed for upwards of a week. — DR. BIXBY referred to a case in which death resulted from an attempt by a pregnant woman to produce abortion by an injection of the uterus with a Davidson's syringe.

FEBRUARY 9, 1878. *A Peculiar Condition of the Cervix Uteri which is found in Certain Cases of Dystocia.* — DR. HOSMER read the case.[1] — DR. RICHARDSON said the paper of Dr. Hosmer seemed to illustrate most admirably, from a clinical point of view, the theory which Dr. Bandl, of Vienna, had formed from a pathological study of this class of cases. Moreover, the cases cited by Dr. Hosmer all bore out the general statements made by Dr. Bandl as to the occurrence of these ante-partum uterine constrictions. They all appeared in patients who had been for some time in labor; in all the presentation had been a head, and, if he remembered the cases rightly, in multiparæ. The cause of the accident Dr. Bandl considers is due to a slight pelvic deformity. In cases where there is much deformity of the pelvis, the head cannot become engaged in the pelvis, and therefore the cervix is not caught and subsequently pressed against the pelvic walls. In some cases reported by Dr. Bandl, the simple introduction of the hand for the purpose of effecting version, or the passage of the blade of the forceps, was sufficient to cause a rupture of the uterus. In all cases where there was a rupture the autopsy showed that the laceration had taken place at the junction of the elongated cervix and the body of the uterus. Accordingly Dr. Bandl advises that when this condition of things has been made out the proper treatment should be craniotomy. These statements of Dr. Bandl are, however, questioned by some of the German obstetricians, especially by Dr. Martin, of Berlin. — Dr. **Sullivan** said that in ordinary hour-glass contraction it does not seem true that it is in all cases a contraction of the internal os. In his own cases he had been able to trace the condition through the abdominal wall, at a site which seemed to indicate a higher position than that of the internal os. — Dr. **Chadwick** asked in what proportion of cases the anterior lip gets above the brim before the head descends. — Dr. **Ingalls** remarked that it does go up sometimes without being pushed up, but that it can be and often is pushed up by the fingers, — the best time being just preceding a pain. — Dr. **Abbot** said that he had often held back the anterior lip of the womb where it was pressed downwards in advance of the head, with the result, as he believed, of considerably expediting the labor. In a recent case he had done this with evident benefit. It seems so reasonable a thing to do that he had supposed it to be a common practice. — Dr. **Sinclair** said that if, when the neck of the uterus is stretched over the head anteriorly, it be held till the next succeeding pain has passed, it will probably not come down afterwards, and the labor will be materially aided. — Dr. **Chadwick** remarked that this would be important in a case such as he had recently had, in which the anterior lip protruded from the vulva, being carried down with the child's head, and there was fear that it would be torn off. — Dr. **Sullivan** referred to a case under his care a few years ago, in which the anterior lip, tense and rigid, was carried down upon the child's head almost to the vulva. The edge of the lip being slit with a blunt bistoury went up immediately, and the woman was delivered very soon afterwards. This procedure was severely criticised by a professor in Philadelphia; but an examination showed only the slightest nick as the remains of this incision. — Dr. **Fifield** said that Barnes alludes to the catching of the anterior lip as a powerful agent in retarding labor, and that he had seen in the *Lancet* cases of the sort reported by the former resident accoucheur of the London Hospital. Dr. Fifield referred to the report of the case of a young woman, twenty-three years of age, a primipara, at term. Version was performed, resulting in the death of the child. At the second confinement there was the same impossibility of delivery; craniotomy was performed, and the woman was advised never to think of having another living child, and to be delivered at the seventh month. At her third pregnancy, however, she was told to wait till full term, and when labor came on her position was changed to a dorsal one, a binder was applied tightly about the abdomen over the uterus, and delivery of a living child was speedily accomplished. — Dr. **Lyman** remarked that the uterus contracts below the largest diameter of the grasped head, and the more opportunity it has to contract the tighter it gets. If two or three fingers be introduced within the cervical ring when at rest, and counteracting pressure be maintained by them during one or two subsequent pains, in nine cases out of ten the longitudinal contractions will drag the thinned cervical portion back without difficulty, and that in cases where the lip cannot with safety be slipped back directly.

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[1] See JOURNAL, vol. xcviii., p. 360.

DEDICATION OF THE NEW LIBRARY HALL OF THE NEW YORK ACADEMY OF MEDICINE, OCTOBER 2, 1879.[1]

THE new library hall of the New York Academy of Medicine, No. 12 West 31st Street, New York, was formally opened with appropriate exercises on the evening of the 2d of October, in the presence of some five hundred members of the society and their friends. The new audience-room measures twenty-eight feet in width by fifty feet in length, and is two stories in height. It forms an extension to the building purchased by the Academy four and a half years ago, and this now covers the entire lot of one hundred by twenty-eight feet.

The New York Academy of Medicine was organized in the year 1845, but was not incorporated until 1851. In the spring of 1875 it purchased its present quarters at a cost of $42,500. Of this amount $32,500 were paid at the time, leaving a mortgage on the property of $10,000, bearing interest at the rate of six per centum. In 1877, the legislature amended the charter of the society by conferring trust powers, and by virtue of these a general permanent fund for the payment of the interest on the mortgage and for current expenses, and a library fund for the purchase of new books, were created. Last spring the Academy, finding its quarters too cramped, decided to put up an addition to the building, which should be used as a lecture hall, as well as serve to increase the accommodations for the rapidly increasing library. Sufficient funds were soon subscribed, Dr. Abram Dubois contributing a large share of the money, and on the 15th of April the work of building the new hall and making the other necessary alterations was begun. It was completed, in accordance with the terms of the contract, by the middle of August.

The floor is composed of Georgia pine, covered with a handsome carpet, and forty settees have been provided for the use of members attending the meetings of the academy and other bodies. These will seat two hundred persons, but by calling into requisition the seats in the gallery and the old meeting hall in part, an audience of five hundred can be accommodated, as on this occasion. The ceiling is lofty, having been carried up to the height of the third floor of the main building, and there is a gallery extending around all four sides of the room, which communicates with the second floor of the latter through a wide archway, and contains a considerable portion of the books of the library, arranged on neat shelves. The acoustic properties of the new hall are perfect, and the most approved plans of heating and ventilating the rooms have been adopted. In the centre of the ceiling is a large, double sky-light, with a space between the upper and lower sashes of about five feet; while the lower sash bears the seal of the academy (the principal feature of which is the head of Hippocrates), beautifully finished in colored glass. Around this lower sash is a space about six inches wide, just beneath which a border of gas-jets, sixty-four in number, is placed. By means of this arrangement the room is beautifully lighted, and the burning gas producing a current, the foul air of the room rushes upward and outward through the upper sky-light, while its place is supplied by fresh air admitted through ventilators near the floor.

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[1] Reported for the JOURNAL.

When the Academy first took possession of its present building the library was composed of about four hundred volumes. To-day it numbers ten thousand, and there are to be found on the tables current copies of upwards of ninety American and foreign medical periodicals and transactions of learned societies. The library is open free to the profession and the public, from ten o'clock A. M. to five o'clock P. M. daily, Sundays and legal holidays excepted. The principal officers of the Academy, at present, are: —

President, Fordyce Barker, M. D., LL. D.; vice-presidents, W. T. White, M. D., T. Gaillard Thomas, M. D., J. R. Leaming, M. D.; recording secretary, H. T. Hanks, M. D.; corresponding secretary, John G. Adams, M. D.; treasurer, H. P. Farnham, M. D.; trustees, Austin Flint, M. D., S. T. Hubbard, M. D., Isaac E. Taylor, M. D., G. M. Smith, M. D., S. S. Purple, M. D.; librarian, L. Johnson, M. D. The committee of arrangements and reception consisted of the corresponding and recording secretaries and the following gentlemen: Drs. Fessenden N. Otis, Gouverneur M. Smith, A. A. Smith, and E. Darwin Hudson, Jr.

On the evening of the dedication of the new hall the walls were decorated with portraits (most of them life-size) of all the presidents of the Academy since its organization, and of many of the founders in addition. Among them are those of Abram Dubois, John W. Francis, David Hosack, Valentine Mott, J. M. Smith, Edward Delafield, Alexander H. Stevens, Gordon Buck, E. R. Peaslee, Robert Watts, Alonzo Clark, Willard Parker, Alfred C. Post, and John T. Metcalf. The portrait of Dr. Dubois had the place of honor directly over the head of the president's chair, and still higher up on the wall was the motto of the Academy, "*Una fides altare commune*," just above which there was a black mural tablet with the inscription in letters of gold, "This Hall, the Gift of Abram Dubois, M. D., Generous Benefactor of the New York Academy of Medicine, was erected A. D. 1879."

On the platform sat Drs. Willard Parker, Alfred E. Post, James Anderson, Austin Flint, S. S. Purple, Freeman J. Bumstead, president of the New York County Medical Society, James R. Leaming, and William T. White, at the president's right; while on his left were Drs. Henry W. Ackland, regius professor of medicine University of Oxford, president of British General Medical Council, etc., S. D. Gross, of Philadelphia, J. S. Billings, U. S. A., Librarian of the Surgeon-General's Office, Washington, George Shattuck, of Boston, T. Gaillard Thomas, Robert F. Weir, president of the New York Medical Journal Association, and William Detmold. Among the audience present were the Rev. Henry C. Potter, D. D., rector of Grace Church, New York, and Drs. J. Marion Sims, John T. Metcalf, John Milham, late a surgeon of high rank in the U. S. Army, G. S. Beardsley, surgeon U. S. Navy, John G. Adams, John C. Dalton, J. Lewis Smith, F. N. Otis, J. W. S. Gourley, George A. Peters, Frederick D. Leute, the recently elected president of the American Academy of Medicine, and I. I. Hayes, the arctic explorer.

The president, Dr. Fordyce Barker, opened the exercises with a few remarks, during the course of which he said that, on a recent visit at the College of Physicians in London, he was shown a golden goblet, and was told that it was the "loving cup." He then invited all present to remain after the addresses were over to take a "loving cup," and only regretted that it must be one of glass instead of gold.

After the report of the committee on admissions, Dr. Joseph Wiener, chairman, presented the report of the subscription committee, in which he stated that a sufficient sum had been contributed to complete and furnish the building, and read the names of all those who subscribed to the object. The report of the building committee was then read by its chairman, Dr. S. S. Purple, who stated that Dr. Dubois had at first given the generous amount of $5000 for the erection of the new hall, and had afterwards made a donation of $3000 on condition that the latter should go into the permanent library fund. The receipts from all sources on behalf of the building fund had been $12,573; and the disbursements (including the $3000 devoted to the permanent library fund), $12,556. The entire costs were thus provided for, and not a single cent of debt remained in connection with the new enterprise. Dr. Purple gave a history of the work from 1876, when the idea of such an extension was first agitated, and then an account of the nature of the construction, ventilation, and fitting up of the building; and, in conclusion, presented the thanks of his committee, first, to Dr. Dubois, secondly, to the other subscribers, and, thirdly, to the subscription committee.

(*To be concluded.*)

THE ADMISSION OF WOMEN TO THE STATE SOCIETY.

We regret to be obliged to announce that at a meeting of the councilors held on October 1st, it was voted to admit women to the Massachusetts Medical Society. The report of the committee to whom was intrusted the investigation of this question was unfavorable to their admission as members, but a minority report was offered and substituted for it. The final vote was passed by a small majority, a large number voting in the affirmative, not because they believed in the desirability of female practitioners, but rather from a disinclination to oppose the movement. The arguments in favor of it seem to have been based upon a misconception of the nature of the objections influencing the minds of the opposition. Some of the speakers were at great pains to point out that the number of women who are now in active practice is so great, and their standing in the profession such, that we are no longer justified in withholding from them the advantages of membership. These arguments are freely used as convincing proof that a change is desirable, and all opposition is stigmatized as based upon narrow-mindedness and jealousy.

The real point at issue is systematically ignored. In this progressive age we are expected to overlook any little scruples of decency or morality which the etiquette of a by-gone time has thought necessary as a restraint to the sexes in their social intercourse. Enshrouded in her mantle of science, woman is supposed to be endowed with power to descend from that high pedestal upon which we men have always placed her, and to mingle with us unscathed in scenes from which her own modesty and the esteem of the other sex has hitherto protected her. We do not believe it possible that she can frequent our public meetings or lecture rooms when certain topics are discussed without breaking through barriers which decency has built up, and which it is for the interest of every lady and gentleman to preserve.

The action of the councilors will doubtless exert but little influence on the present condition of the body which they represent, but unless this whole movement die out, and the action prove virtually *nil*, the society will have taken a long step downward from the dignified attitude which it has hitherto assumed as a scientific body, and its moral tone will have been perceptibly lowered. It will gain temporary applause, but the reaction will be a loss of influence among a certain portion of the profession whose support it cannot afford to do without.

PRELIMINARY EXAMINATIONS.

THE necessity for some kind of a test of the previous education of candidates presenting themselves at our schools for matriculation, has gradually been forcing itself upon public attention. A number of the schools have already instituted examinations for this purpose. Michigan was, we believe, the first, Harvard the next, and now both Pennsylvania and Yale universities exact similar tests. It may be worth while to see what these amount to, and to compare them with those required in Canada and England. The following are the subjects of examination for matriculation at the Royal College of Surgeons: English language, including writing from dictation, grammar, and composition; arithmetic, including vulgar fractions and decimals; geography English history; mathematics, Euclid, books I. and II., and algebra to simple equations; Latin, Cæsar. He must also select one of the following subjects: Greek, French, German, mechanics, chemistry or botany, and zoölogy.

At the McGill University, in Montreal, the requirements are practically the same. In Quebec the subjects for examination are as follows: compulsory subjects, English, French, Latin, arithmetic, algebra, Euclid, history, geography, belles-lettres; optional subjects, Greek, natural and moral philosophy. In Ontario we find again about the same. In the announcement of the Pennsylvania University catalogue it is stated that the applicant will be required, first, to write a brief essay, not exceeding a page of foolscap, which will serve as a test of his qualifications in orthography and grammar; second, the elementary principles of physics as contained in Towne's chemistry; third, Latin prose (Cæsar) or any other language than English. At Yale the following is the list: (1.) Mathematics, algebra to quadratics, Euclid, two books, metric system of weights and measures. (2.) Latin, translation of easy prose or of Virgil's Æneid. (3.) Physics, Balfour Stewart's elementary physics or any equivalent work. At Bellevue the examination next year will be English grammar and composition, arithmetic, including vulgar and decimal fractions, algebra, and geometry. At Harvard, the candidates are examined in: (1.) Latin, the translation of easy Latin prose. French or German may be substituted. (2.) Physics, Balfour Stewart's elementary works on physics. (3.) English.

From this brief summary it will, we think, be evident that the English schools intend that those who have not received an academic degree shall pass an examination equal to the minimum requirements of such a course of study, while in the United States the schools have not yet ventured to require this amount of study from those who have not taken an A. B. Our preliminary examinations represent, in fact, but little more than the "three R's." It will be a matter of some surprise to many to find that Harvard's standard is lower than that of any other of the above schools, and we may add that the method of conducting the examination is so lax as to make it of little if any value as a test of the applicant's fitness to study a profession.

MEDICAL NOTES.

— We reprint to-day an amusing article from the New York *Medical Record*, recounting the experiences of a successful medical practitioner. By his disinterested kindness to the patients of other physicians, and his persevering efforts to prevent them from falling into his own hands, he secures the gratitude of everybody interested, and secures the patients besides. As an enthusiastic admirer of the code of ethics he feels an honest pride in showing how rigorously he abides by its very letter. We believe the article will be read with profit by councilors of our state society, who have the subject of a code of ethics under consideration. It is a skillfully drawn picture of a not uncommon type of modern practitioner of unquestioned moral character and ability, in whose hands the most unyielding code of ethics becomes a pliable accomplice in promoting his prosperity.

— In order to show what value may be placed upon the reported death-rates of many of our cities, we make the following quotation from a Baltimore paper: "We are able to report that the directory method of taking the census has been put into effect here with great success, and the population of Baltimore has been brought up to the handsome figure of 393,996. This result has been arrived at in a way that always produces gratifying results. Mr. Woods, the publisher of the Directory, has had a careful count made of the number of names of individuals, which aggregate 98,449. Mr. Woods then assumes four inhabitants to each name, which gives the beautiful total above stated. Some unscrupulous Western directory publishers assume a ratio of five to one, and in the same way Baltimore could claim half a million population, too; but it is the desire of Baltimore to be within rather than over the mark in all her statements."

— In the *Pacific Journal* Dr. Clinton Cushing reports among some cases of laceration of the cervix uteri one in which pregnancy followed within a month. The patient was safely delivered at term, and an examination six weeks later showed that no injury to the cicatrix had occurred.

— The *Cincinnati Lancet and Clinic* observes: "It must have required an unusual amount, not only of candor but also of daring, on the part of the editor of the Boston Medical and Surgical Journal to acknowledge the tendency of the general reader to skip that part of his journal devoted to society reports. He even ventures to say that the time has come for a thorough reform in the method of conducting Boston societies, and has the hardihood to suggest that one or two be disbanded. What dire consequences may follow this editor's audacity in thus exposing the weaknesses of that centre of self-asserted culture we know not, but we are forced to admit that, for several years past, the perusal of Boston society proceedings has been a labor performed by us rather from a feeling that it was one of the duties of journalism than from any sense of pleasure or profit thereby derived. This long experience leads us heartily to concur with the editor that 'the evidence of literary training, practice in the art of recording bedside observations, or skill in debate are in Boston exceedingly rare.'"

NEW YORK.

— The opening exercises of the regular winter session took place at the medical department of the university on the evening of September 30th, and at the College of Physicians and Surgeons and Bellevue Hospital Medical College on October 1st. At the College of Physicians and Surgeons the introductory address was by Prof. H. B. Sands, and at Bellevue there was an address by Professor Flint, which was followed by remarks by Prof. James R. Wood and Dr. Thomas Burchard, of the Alumni Association. At the university the chancellor, the Rev. Dr. Howard Crosby, formally opened the medical school, and the orator was Prof. John C. Draper. The study of medicine, he said, might be pursued either as a science or an art, that is, for the sake of knowledge or for the sake of production, and the question of productive application was, he feared, in the great majority of instances the chief end in view. After speaking of the significance which the ancients attached to the number seven, which Cicero called the knot and cement of all things, he alluded to the seven branches of medicine, whose professors seemed to be regarded by many students as the seven devils of Scripture come to torment them before their time. Thus, having given some general advice as to the pursuit of medical studies, and particularly recommended the three years' graded course to all who could possibly avail themselves of its advantages, he went on to speak of the special department of chemistry, of which he has charge. Twenty years ago a practical chemical laboratory had been instituted by him, and although the course in it had always been optional, the success attending it had been such that for the last three years one half of the members of the graduating class had enjoyed the advantages afforded by it. For the majority of those who study medicine a laboratory course extending over a year was not practicable, but all should have, as the present state of medical knowledge demands, a sufficient training in the laboratory to enable them to conduct satisfactory examinations of the bodily functions. The extent to which laboratory work should be made obligatory was now a question of debate, but he believed that the time was not distant when it would be as much so as attendance in the dissecting-room.

— The death of Dr. Seth Williams, a young physician of great promise, is announced from Portland, Maine. He was graduated from the academic department of Yale College in 1873, and the Bellevue Hospital Medical School in 1876, when he took the Flint prize in physiology. He then went abroad for two years, when he did excellent service with Professor Arnold, of Heidelberg. On his return he passed a competitive examination for a position as interne in Bellevue Hospital, and last winter he won the prize of two hundred and fifty dollars, which Professor Sayre offered for the best essay, by a graduate of the Bellevue school, on the Ætiology and Pathology of Pott's Disease of the Spine. His death is said to have been due to cerebral embolism resulting from organic disease of the heart.

PHILADELPHIA.

— The management of the coroner's office in Philadelphia has been a chronic subject of dissatisfaction and complaint for many of our worthy citizens for a number of years. To remedy some of the abuses, a few years ago public opinion insisted that the office should only be held by a member of the medical profession, and since then the position has been filled in succession by two prominent regular physicians. A difference of opinion has arisen lately, in regard to the emoluments of the office, between the city solicitor and the present official, the result of which is a suit brought by the city against the coroner to recover $6,000 excess of salary paid. It is said that illegal fees have also been charged, which will make the total due the city about $19,000, according to the city solicitor's calculation. The coroner claims, and no doubt justly, that in the matter of charges and fees he has only followed established precedents in his office. If this should lead eventually to the resignation of the present incumbent, the abolition of the office of coroner, and the adoption of the medical examiner system, the city would gain by it. Such a stroke of enlightened public policy, however, need not be looked for in a community where it has been found impossible to establish even a state board of health.

ST. LOUIS.

— The sessions of the medical colleges have begun in St. Louis, with a large number of students. There are no changes in the faculties of the St. Louis or Missouri colleges. The tuition of the St. Louis Medical College is one hundred dollars a year. The faculty of the Missouri Medical College have voted to raise the tuition in that institution to seventy-five dollars in 1880. We understand that the new college originated by Drs. Bauer and Hazard stands on a basis freed from any financial fetters, and that the fees will be regulated by the means of the students. Most of the professors are young men.

— The medical profession here has just sustained a severe loss in the death of Dr. Frank G. Porter, which occurred September 21st, in his fifty-sixth year, as a result of embolism. During the late war he occupied the position of medical director, and was on the field during many of the great battles of the West, discharging his duties with honor to himself and credit to his country. Appropriate resolutions were passed by the St. Louis Medical Society and by the National Guard, of both of which organizations he was a member.

SHORT COMMUNICATIONS.

THE EXPERIENCES OF A SUCCESSFUL PRACTITIONER[1]

There are some physicians who believe that the code of ethics was made solely for the benefit of the older members of the profession who have secured a position. I used to think so when I was younger. Now I believe that the next thing to looking after your own interests and seeing that you have a fair show in the race for professional success is to stand up for medical ethics through thick and thin. Without shocking any personal modesty, I may say that I have followed out this principle with a good result. There is such a thing as being charitable to your brother, and if you can only show that charity to advantage before a third person, you are quite sure to benefit yourself, especially if the third person is in need of medical advice. But all the while you must keep a single eye to the glory of the code, and recollect that he who plays with fire must have a long reach. As I said before, I never lose any opportunity of speaking well of a professional brother when I am accidentally called to see his case. To this, in fact, I owe most of my success in practice; for not only will his patients force themselves upon me, but he will call me in consultation to others. As there are not a few who would like to know how this is done, I may perhaps flatter myself that a little detail of personal experience may not be uninteresting. By way of premising, let me say that I am particular to cultivate younger men and help them along in practice as well as I can. To illustrate this particular point, I will refer to an instance or two that occurred in the earlier practice of Pine Ridge, which showed the benefits of my magnanimous spirit.

One morning, in driving through the village, I noticed the bright new sign of Dr. White. I smiled an inward satisfaction, and resolved to be his friend. At once concluding that I had more business than I needed, and that there was plenty of room for the new man, I resolved to call on him and welcome him to the town. This was done, and, to my surprise, he stated that he had not been led to expect such courtesy. The evening passed pleasantly, and, notwithstanding we were interrupted by my servant with fifteen calls for me, to which I must attend before retiring, the festivities were kept up until a late hour. As I left him I just happened to think of my patients, when he pitied me, and charitably wished himself in my place. His young and innocent smile appealed to my heart, and soon after, when dropping to sleep on my couch, and thinking of his surprise at my fifteen extra patients, I resolved to be his friend. As he was working principally for a reputation, I commenced my good deeds by recommending to him such chronic cases as I did not want and who could not pay. I introduced the first patient by note, and received a gracious and appreciative reply, which hangs, duly framed, in my office. But this is by the way.

I dropped in every now and then to see him, and he being always in I seldom lost the opportunity for a quiet and confidential talk. He was well prepared to practice, having studied two full years, attended in that time four courses of lectures, and received two prize medals and a certificate for a month's attendance on a post-graduate course. My soul warmed at the opportunities I should have of recommending him accordingly to some of the good-paying patients I should send him. It may be well to state here that at the outset of my acquaintance with him I made him a present of a copy of the code and secured his membership to our county society, thus insuring his professional standing. Need I say that, with all these advantages, the young man succeeded? He did. Is it a wonder that I should be gratified? Hardly. And could I be blamed for giving him help when he did succeed? But I proceed with my illustrations, and as details of cases are sometimes more instructive than generalities I make no apology for introducing one or two here.

One summer afternoon I was driving past Smith's, and was asked by Mrs. Smith to look at her son Harry. Notwithstanding I was in a great hurry, and had to visit thirty patients before supper, I consented to see the patient. I at once told the mother that the child was very sick, that it had evidently been left too long without proper treatment, and chided her for neglecting to send for me before. When she informed me that Dr. White was attending the case I at once became mortified at my indiscretion, and for a time could not see my way clear to vindicate my brother's good name and uphold professional honor. Of course,

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[1] From the New York Medical Record.

I at once backed down, and openly confessed that I did not know that Dr. White was in attendance; that he was a good fellow, a friend of mine; that I was sorry I had said anything against him; that he was probably right, — at least, I hoped so; that it was against our code of ethics to criticise each other's treatment, to destroy the confidence of our patients, or in any way strive to replace each other. The child vomited at this time, and I arose to retire, declining to have anything to do with the case until Dr. White should be sent for. The appeals of the mother brought me back, and I held the child's head. At the same time I whispered words of kindness in his ear. I informed the mother if it were my case I should have the child seen to at once, and urged her to send for Dr. White. I found a good opportunity to say to her that Dr. White, although a very young man, with but little experience, was remarkably apt; that although he was brought up as a carpenter, he had learned the science of medicine in two years, and that such enterprising men should be encouraged. Politely declining to have anything more to do with the case, I gracefully retired, promising to stop myself and send Dr. White around. I did so, telling him what good service I had done him, and how necessary it was in all our relations to prevent ill-feeling and jealousy by sticking to the code and acting squarely with each other. I heard no more of the case until that evening, when I was summoned to meet Dr. White in consultation. I informed the father, who summoned me, that I was very much pressed for time, but that I would nevertheless do all I could to help my friend White.

Having arrived at the house, Dr. White examined the patient first, but quickly yielded to me. Anticipating that the case would be a difficult one for diagnosis, I had brought all my instruments of precision with me. Unfortunately, Dr. White had none of these, but I believed it to be my duty to give the patient every chance. I examined the eye with the ophthalmoscope, and demonstrated to Dr. White and the father of the child the commencement of a choked disk. Dr. White had never seen such a thing before, and he was honest enough to say so before the family. The ear speculum showed a slight opacity of the tympanum, due to thickening around the malleus, and slight œdema over the site of the tensor tympani muscle. The laryngoscope disclosed patches behind the uvula and a slight paralysis of the right vocal cord. The cephalic temperature was slightly increased (one two hundredth of a degree) over the right or affected eye. A slight aortic murmur, a crepitant râle at the base of the lung, proved the value of a stethoscopic examination. The liver was normal, but, on account of the relaxation of the umbilical ligament, hung a little low. Thermometer in the rectum marked 101° F. Urine collected to be afterward examined. Tested on the spot by a urinometer, much to the satisfaction of the father, who was pleased with the delicate action of the instrument.

The rectum being examined, some ascares vermiculares were found, indicating a faulty nutrition of that point. The worms were slightly asphyxiated. Unfortunately, Dr. White had not examined this part of the body, a fact for which he was quietly blamed by the mother, who said from the first that she "thought it was worms." I politely informed her that the doctor had done everything that was really required, and that my examinations were necessary only for the sake of clearing up any doubtful points. In fact, it was only called for on the ground that experience had taught me that it was best to be on the safe side. The child having some diarrhœa, I asked to see the passages, remarking casually that now we should have a clue to the whole trouble. The mother had not saved the passages. Unfortunately for me, before I thought, I asked the doctor what was their character, and he was forced to reply that he had not examined them. Determined to shield the doctor, I changed the subject by remarking that after all it might not have been of any importance, only I should like to have seen them for my own satisfaction, — a matter so purely selfish that I was forced to smile as I referred to it. I forgot to mention that the prepuce of the child was slightly elongated; that he had a strong liking for sugar and peanuts, and was occasionally peevish when crossed.

While I was washing my hands, the father was examining my instruments and asking the doctor all sorts of questions as to their use. I confess I was somewhat surprised at the latter's ignorance, and made an excuse to give the necessary explanations. This was done more to turn the subject of conversation than for any desire to satisfy the inquisitive parent.

After tucking Harry under the chin and bidding good-evening to the parents, I retired with the doctor for formal consultation. We agreed that it was a simple case of intestinal irritation, and I suggested a change from rhubarb and soda to chalk mixture well sweetened and highly flavored. But, said Dr. White, "how about the choked disk?" I replied that such, as well as the aortic murmur and increased cephalic temperature, was due to a slight congestion of the pons Varolii, which was reflected through the vaso-motor system of those parts. He was satisfied, and thought it best to give such a diagnosis to the mother. I agreed, but he became confused in his explanations, and I had to help him out. While Dr. White was in with the child prescribing the new medicine I started to go, when the father waylaid me in the hall, asking all sorts of questions about the case. I informed him that the child would probably get better now; that Dr. White, who although young was willing to learn, had agreed to change the medicine; and that if he was careful in studying the new symptoms he would not need any further assistance. While doing this I impressed upon him the fact that I was a great friend to Dr. White; that he was an exceedingly apt scholar, and, for his opportunities, he was the safest doctor of his age that I knew. Just then the doctor came out of the room, and I kindly put my arm in his, we walked out together, and I confidentially informed him that although his position was a little shaky in that family I had done my best, in accordance with the code, to hold up his hands and say what I could for him as a professional brother. He thanked me, and we parted on the corner.

When I arrived at my office the father of the child was waiting for me. He requested me to see the patient again that night. The child had vomited since the visit, and the parent did not believe that Dr. White understood the case. In fact, he desired me to attend it henceforth. This at first I flatly refused to do.

When Mr. Smith urged me to see his child, after my consultation with Dr. White, I told him that I could not do so because, Dr. White was the regular attendant. Besides, I was overrun with work, and it was but fair that Dr. White should have a start and make a living. I further said that I appreciated the feelings of a father who was anxious about his son, but, under the code, I was forbidden to help him out of what he believed to be his difficulty. My assurance that the child would probably recover did not comfort him much; neither did he seem satisfied when I informed him that I would from time to time give Dr. White such hints as occurred to me, as Dr. White generally consulted me privately about his difficult cases. Such a trait, in my opinion, recommended him as a young man who was conscientious to his patients, and not afraid nor ashamed to learn.

Just then Dr. White dropped into the office, and was somewhat surprised to see Smith and I in conference. Smith was, however, astonished, and for the moment did not know what to do. This gave me my opportunity to put both at their ease by saying that Mr. Smith was naturally much worried about his child, and not knowing anything about the code, had dropped in to talk over the case, and that I had comforted him by telling him that Dr. White was just the man for the case, and that it was not proper for me to interfere by word or act. Dr. White was pleased, and the ice was broken for a general conversation. The latter ended by my promise to be present at a consultation on the morrow. After Smith left, Dr. White and I had a frank conversation upon the proper relations which should exist between patient and physician, and between each other; at the same time he intimated that Smith seemed to be a little dissatisfied. White did not believe in keeping cases against the will of the patient, and became virtuously indignant at the want of confidence in him. So incensed did he seem that I was fearful that he might give up the case at once. However, I coaxed him to hold on, and he finally left in good humor.

The following day I arrived at the patient's house before Dr. White, and waited for him at the bedside. While so doing I learned that Harry had three passages since the night before, and was worse. The mother then showed me the medicine that Dr. White had ordered. I said that there must be some mistake, that in fact the remedy was the same as the child had been taking when I called, and signified my desire to see the new medicine. When informed that the mixture was made by Dr. White since the consultation, I at once smiled, and changed the subject. The mistake arose from the fact that Dr. White had repeated the rhubarb and soda instead of using the chalk mixture. Although this annoyed me somewhat, I merely remarked that Dr. White must have misunderstood me, that the medicine should be white instead of red, and that I would explain the matter to him when he came. In the course of the conversation I learned that each time after partaking of the medicine the child became worse; but I merely said that she could stop giving the remedy, and that we would make it right when the doctor arrived. Just then he came in. I had the bottle of medicine in my hand, and apologized for my apparent interference by remarking to him that he had misunderstood me, and that the child appeared to be worse. He blushed somewhat, and said that he had none of my medicine with him at the time, — a remark which was very indiscreet in presence of an anxious parent. However, I said that as I carried it around with me always and used it a great deal, I would give him some. Accordingly I made the mixture on the spot, administered it to the boy, and retired to consult. White agreed to continue with the chalk mixture, and, when we returned, the boy said he felt good, wanted to sit up, and said he was hungry. I playfully remarked that he liked his medicine, and that he was getting better already. Dr. White smiled also, and the mother seemed to be quite happy. Shaking hands with little Harry and patting his head, I took my leave, saying that the doctor had done everything necessary, and that I had nothing more to suggest. We left together. White apologized for not using the chalk mixture the day before. I told him that it was a small matter, but was on my part sorry that I had alluded to the fact before the mother. The next morning White called on me to say that, although the child had improved, the family had dismissed him, and urged me to see the case. I felt very delicate about the matter, but as I knew that my former partner would be called in, and as Dr. White and the family were both willing, I consented, if sent for, to see the case through. After coming to such a conclusion, Dr. White thanked me for what I had done for him, and assured me that he was willing to leave himself and his former case in my hands. Harry recovered in a day or two, but all I can do I cannot persuade the mother to employ Dr. White any more. Can I do more?

I have often tried to impress upon Dr. White the importance of humoring his patients, and have many a time told him that he was too dogmatic. On several occasions I have been placed in an apparently false position by his obstinacy. To give an instance: A wealthy gentleman from the city built a fine mansion in the village, and came with a letter of introduction from a college professor to Dr. White. Dr. White of course had the family. I was glad to hear of his good luck, especially as the wife of the gentleman was an invalid, and required a great deal of attention. One day on driving past I was hailed by the servant, who asked me to step in and see his mistress. I obeyed the summons, and found a delicate lady reclining upon a lounge, complaining of a ball in her throat, great oppression in breathing, great pain in left side, and a desire to urinate frequently. She informed me that she was Dr. White's patient, but was somewhat discouraged with his treatment. I at once told her that Dr. White was a splendid fellow, one who had a great opportunity for working out her case; that although he had but few patients he loved to study, and was, on the whole, a very safe, if not too cautious, a practitioner. But this did not quiet her pain. She said that Dr. White had not only left her medicine which made her worse, but that he had insisted upon her taking it in spite of the pain. I asked her, with honest incredulity upon my countenance, whether he actually said so. I tasted the medicine and repeated the question, with a like answer. Being then assured that there was no mistake, I said that he was probably right, but that she had better not take any more of the medicine until I saw Dr. White. She then seemed better satisfied. I found, on questioning her, that Dr. White had not made any vaginal examination, nor had he hinted at any. Some way or other she squeezed out of me an opinion that her whole trouble was uterine, and that an examination was necessary. I think I told her as much before I knew whether or no White had expressed any opinion. At all events, to humor her I examined her on the spot, and discovered an abrasion of the os. I promised her that I would tell Dr. White about it, and left her without any further suggestion. Now White is one of those stubborn chaps who do not believe in abrasions; but I tell him almost every woman has them, or ought to have them, and he will be always safe in a diagnosis. He informed me that he did not intend to humor such a prejudice on the part of his patient, and seemed a little angry. In spite of all I could do, when the husband of the lady sent for me to attend her, I could not persuade her that White was of the two doctors the better man. This case, by the way, narrowly escaped going to my partner, who is a uterine man, and who is favorably known among the laity as the inventor of a self-entering, self-retaining, back-action speculum. I do not think much of his instrument, however, as I have invented one of my own. It is needless to say that the case progressed favorably, and I secured a good fee. It might just as well have gone to Dr. White, but I did the best I could for him as a professional brother. The result of this case was published in our town paper, but as I was chairman of the committee of ethics of our county society, I explained the case satisfactorily.

Although I have gone somewhat into detail regarding the matter of this epistle, it has been my desire to show that, with every appearance of having actually stolen patients from Dr. White, I did everything I could, "under the code," to protect and befriend him. And yet there are some who say that there is no necessity for a code. * * *

PINE RIDGE ON THE HUDSON.

REPORTED MORTALITY FOR THE WEEK ENDING SEPTEMBER 27, 1879.

Cities.	Population estimated for July, 1879.	Reported Deaths in each.	Annual Death-Rate per 1000 during the Week.	Percentage of total Deaths from				
				The Principal "Zymotic" Diseases.	Diarrhœal Diseases.	Diphtheria and Croup.	Lung Diseases.	Scarlet Fever
New York	1,085,000	451	21.67	27.05	14.19	4.21	9.31	3.32
Philadelphia	901,380	253	14.64	13.83	5.53	3.16	2.77	.79
Brooklyn	564,400	199	18.33	25.63	7.04	10.55	6.03	1.01
Chicago	—	149	—	30.20	5.37	14.09	2.68	6.71
St. Louis	—	106	—	28.30	8.49	6.60	2.83	2.83
Baltimore	375,000	140	19.40	37.14	5.71	7.86	5.00	9.28
Boston	360,000	130	18.82	28.46	17.69	2.31	23.08	2.31
Cincinnati	280,000	91	16.94	24.18	5.49	7.69	2.19	5.49
New Orleans	210,000	86	21.35	16.28	5.81	2.33	2.33	—
District of Columbia	170,000	82	25.08	20.74	13.41	2.44	13.41	—
Cleveland	160,000	50	16.29	26.00	6.00	10.00	2.00	—
Pittsburgh	—	51	—	39.22	7.84	13.73	5.88	11.77
Buffalo	—	—	—	—	—	—	—	—
Milwaukee	127,000	47	19.07	36.17	8.51	19.15	2.13	—
Providence	101,500	32	16.44	25.00	3.13	3.13	6.25	18.75
New Haven	60,000	11	9.56	9.09	9.09	—	9.09	—
Charleston	57,000	33	30.10	24.24	12.12	6.06	9.09	—
Nashville	27,000	18	34.76	27.78	22.22	—	11.11	—
Lowell	53,300	21	20.54	33.33	23.81	4.76	4.76	4.76
Worcester	52,500	18	17.87	27.78	16.67	5.56	—	—
Cambridge	50,000	13	13.56	23.08	15.38	7.69	—	—
Fall River	48,500	—	—	—	—	—	—	—
Lawrence	38,200	5	6.83	80.00	20.00	60.00	—	—
Lynn	34,000	14	21.48	42.86	21.43	7.14	—	7.14
Springfield	31,500	8	13.24	25.00	—	12.50	—	—
New Bedford	27,000	8	15.45	37.50	12.50	—	—	—
Salem	26,400	13	25.68	30.77	15.38	—	—	—
Somerville	23,350	8	17.86	25.00	12.50	12.50	—	—
Chelsea	20,800	6	15.04	16.67	16.67	—	16.67	—
Taunton	20,200	7	18.07	57.14	28.57	—	—	—
Holyoke	18,200	6	17.19	16.67	—	16.67	33.33	—
Gloucester	17,100	7	21.34	—	—	—	—	—
Newton	17,100	7	21.34	42.86	28.57	14.29	14.29	—
Haverhill	15,300	6	20.45	83.33	16.67	16.67	—	—
Newburyport	13,500	8	30.90	—	—	—	12.50	—
Pittsfield	12,650	—	—	—	—	—	—	—
Fitchburg	12,500	4	16.68	25.00	—	—	—	—
Milford	9,800	2	10.64	—	—	—	—	—

Two thousand and ninety deaths were reported: principal "zymotic" diseases (small-pox, measles, diphtheria and croup, diarrhœal diseases, whooping-cough, erysipelas, and fevers) 548; consumption 278, diarrhœal diseases 206, lung diseases 141, diphtheria and croup 137, scarlet fever 67, typhoid fever 52, malarial fevers 35, whooping-cough 31, measles seven, cerebro-spinal meningitis seven, trismus nascentium seven, erysipelas four, yellow fever (New Orleans) two, pleurisy one, small-pox none. From *scarlet fever*, New York 15, Baltimore 13, Chicago 10, Pittsburgh and Providence six, Cincinnati five, St. Louis and Boston three, Philadelphia and Brooklyn two, Lowell and Lynn one. From *malarial fevers*, New York 11, Brooklyn six, Baltimore five, St. Louis and New Orleans four, Milwaukee three, Chicago and District of Columbia one. From *whooping-cough*, Baltimore seven, Brooklyn five, New York, Philadelphia, and Boston four, Cleveland two, Chicago, St. Louis, Milwaukee, Charleston, and Fitchburg one. From *measles*, New York five, St. Louis and District of Columbia one. From small-pox none. Deaths under five, Brooklyn 74, St. Louis 47, Baltimore 56, Cincinnati 34, District of Columbia 37, Cleveland 30, Milwaukee 26, New Haven two, Charleston 17, Nashville five, Cambridge five, Lawrence four, Springfield two, New Bedford three, Salem three, Chelsea two, Taunton two, Haverhill three, Fitchburg two, — 354. The marked decline in diarrhœal diseases continues; diphtheria and croup, lung diseases, and whooping-cough remain about the same; scarlet fever and typhoid fever were much more fatal than in the previous week; measles somewhat more so, and erysipelas less. In 18 Massachusetts cities and towns, with an estimated population of 802,550, diarrhœa was less fatal, typhoid fever and scarlet fever more so.

In Brooklyn the mean temperature was 56.8; humidity 67; rainfall .046 inches; St. Louis, temperature 53.4; rainfall 0.41. Baltimore, temperature 58.9; rainfall 0.19. Cleveland, temperature 42.0; humidity 83. Milwaukee, variable and stormy. The meteorological record in Boston for the week was as follows: —

Date.	Barometer.	Thermometer.			Relative Humidity.				Direction of Wind.			Velocity of Wind.			State of Weather.[1]			Rainfall.	
	Mean.	Mean.	Maximum.	Minimum.	7 A. M.	2 P. M.	9 P. M.	Mean.	7 A. M.	2 P. M.	9 P. M.	7 A. M.	2 P. M.	9 P. M.	7 A. M.	2 P. M.	9 P. M.	Duration.	Amount in Inches.
Sept. 21	30.418	53	65	45	77	58	81	72	NW	SE	SE	3	5	4	F	H	O	—	—
" 22	30.262	54	58	52	81	74	87	80	E	E	NE	10	12	12	R	C	T	—	.01
" 23	30.026	59	70	51	86	67	88	80	NW	SE	SW	4	6	8	O	C	C	—	—
" 24	29.876	58	75	49	100	62	90	84	SW	SW	W	2	22	8	F	O	C	—	.26
" 25	30.242	47	69	40	58	38	54	50	NW	NW	NW	21	12	3	C	C	C	—	—
" 26	30.429	47	59	34	81	45	63	63	NW	SE	S	4	8	6	H	C	C	—	—
" 27	30.426	50	62	40	61	63	72	65	0	E	S	0	13	7	C	C	C	—	—
Week.	30.240	52	65	44				70	NW			1252 miles.						7.9	.27

[1] O., cloudy; C., clear; F., fair; G., fog; H., hazy; S., smoky; R., rain; T., threatening.

The deaths from yellow fever in Memphis for the week ending October 4th were 20, cases 68; total to date, 403 and 1347.

For the week ending September 6th, in 149 German cities and towns, with an estimated population of 7,353,670, the death-rate was 27.4 against 27.2 of the previous week, with a decrease in infectious diseases except whooping-cough and typhoid fever. Four thousand and five deaths were reported: diarrhœal diseases 889, consumption 426, acute lung diseases 208, diphtheria and croup 90, whooping-cough 72, scarlet fever 63, typhoid fever 62, measles 20, puerperal fever 11, typhus fever one, small-pox none. The death-rates ranged from 16.4 in Darmstadt to 40.8 in Chemnitz; Munich 33.5; Dresden 28.5; Berlin 27.1; Leipsic, 25.3; Hamburg 25.1; Hanover 30.0; Bremen 27.5; Cologne 27.5; Frankfort 24.4. Also for the same week, Vienna 23.9; Paris 24.0.

For the week ending September 13th, in the 20 English cities and towns, with an estimated population of 7,383,999, the death-rate was 18.7 against 19.1 of the previous week. Two thousand six hundred and forty deaths were reported: diarrhœa 275, lung diseases 163, scarlet fever 94, whooping-cough 72, measles 51, fever 42, diphtheria 23, small-pox (London) three. The death-rates ranged from 14.1 in Oldham to 25.6 in Liverpool; London 18.2; Brighton 19.3; Bristol 19.4; Birmingham 16.5; Manchester 19.6; Leeds 16.4. In Edinburgh 17, Glasgow 18, Dublin 31 (six deaths from small-pox). In 27 Belgian cities and towns with population from 399,482 to 10,019, the death-rate was 29.2; in 25, from 10,010 to 2332, it was 24.1. Brussels 24.4; Antwerp 23.9; Ghent 31.2; Liege 24.8. Diarrhœa was very fatal, consumption, lung diseases, whooping-cough, measles, diphtheria and croup, small-pox, and scarlet fever coming next in order. In 20 prominent Swiss cities and towns, diarrhœa of young children was exceedingly fatal. Geneva 26.2; Zurich 24.4; Basle 21.7.

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OFFICIAL LIST OF CHANGES OF STATIONS AND DUTIES OF OFFICERS OF THE MEDICAL DEPARTMENT U. S. ARMY, FROM SEPTEMBER 27, 1879, TO OCTOBER 3, 1879.

O'REILLY, R. M., captain and assistant surgeon. Granted leave of absence for one month, with permission to leave limits of department. S. O. 145, Department of the South, September 26, 1879.

Taylor, B. D., first lieutenant and assistant surgeon. Granted leave of absence for three months, with permission to apply for an extension of one month. S. O. 222, A. G. O., September 25, 1879.

Gray, W. W., first lieutenant and assistant surgeon. When relieved from duty at Fort Colville, W. T., to proceed to Vancouver barracks and report to the commanding officer for duty. S. O. 123, Department of the Columbia, September 15, 1879.

OFFICIAL LIST OF CHANGES OF STATIONS AND DUTIES OF MEDICAL OFFICERS OF THE UNITED STATES MARINE HOSPITAL SERVICE, JULY 1 TO SEPTEMBER 30, 1879.

Ellinwood, C. N., surgeon. Granted leave of absence for thirty days from August 12, 1879. August 5, 1879. Ordered to rejoin his station. September 10, 1879.

Bailhache, P. H., surgeon. Relieved from duty at the port of Baltimore, and ordered to New York to relieve Surgeon Ellinwood, granted leave of absence. August 6, 1879. Detailed as chairman board of survey to examine damaged property at the New York Marine Hospital. September 23, 1879.

Doering, E. J., surgeon. Detailed as chairman Medical Board of Survey to examine into the physical condition of an officer of the revenue marine service. September 22, 1879.

Gassaway, J. M., assistant surgeon. Detailed as member of a board to report upon the advisability of establishing a marine hospital at Port Townsend, Washington Territory. September 18, 1879.

Fisher, J. C., assistant surgeon. Relieved from duty at Cairo, Ill., upon the arrival of Assistant Surgeon Carter, and ordered to report for duty to the Surgeon-General M. H. S. August 25, 1879.

Brown, F. H., assistant surgeon. Granted leave of absence for fifteen days from July 12, 1879. July 7, 1879.

Goldsborough, C. B., assistant surgeon. Assigned to temporary duty in charge of the service at the port of Baltimore, Md. August 6, 1879. Granted leave of absence for twenty days from September 22, 1879, by reason of physical disability. September 19, 1879.

Irwin, Fairfax, assistant surgeon. Granted leave of absence for thirty days from October 7, 1879. September 18, 1879.

Glazier, W. C. W., assistant surgeon. To proceed to Georgetown, D. C., as inspector. July 17, 1879.

Dana, C. L., assistant surgeon. Detailed as member board of survey to examine damaged property at the New York Marine Hospital. September 23, 1879.

Carter, H. R., assistant surgeon. Relieved from temporary duty at the port of Boston, Mass., and ordered to proceed to Cairo, Ill., and assume charge of the service relieving Assistant Surgeon Fisher. August 25, 1879.

Heath, W. H., assistant surgeon. To proceed to New York for temporary duty. July 15, 1879. Relieved from duty at the port of Georgetown, D. C., and ordered to report to Surgeon Ellinwood, port of New York. July 26, 1879. Detailed as recorder board of survey to examine damaged property at the New York Marine Hospital. September 23, 1879.

The following candidates, having passed the required examination, were appointed assistant surgeons, July 21, 1879: —

O'Connor, Francis J., of the District of Columbia (assigned to temporary duty, port of Georgetown, D. C., July 26, 1879. Ordered to Baltimore, Md., for temporary duty, during the absence of Assistant Surgeon Goldsborough, September 20, 1879), and

Porter, Frederick D., of Michigan. (Assigned to temporary duty at the port of Detroit, Mich., July 25, 1879. Granted leave of absence for fifteen days from September 6, 1879. September 1, 1879.)

Books and Pamphlets Received. — The Sanitary Problems of Chicago, Past and Present. By J. H. Rauch, M. D. Chicago, Cambridge: Riverside Press. 1879.

Tracheotomy with the Galvano-Cautery. By William A. Byrd, M. D. (Reprint from the St. Louis Clinical Record.)

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LITHOLAPAXY.

BY HENRY J. BIGELOW, M. D.

In a paper upon Litholapaxy published last year, I reported twelve cases with one death. Below is a record of nine cases upon which I have since operated successfully, under ether as before.

Case XIII. March 9, 1878. Age thirty-three. Stone weighing two hundred and forty grains. Time sixty-eight minutes. Rapid recovery. The patient, for many months very ill, was at once relieved.

Case XIV. December 20, 1878. Age sixty-nine. Stone measuring eleven centimetres by fifteen. Time forty-five minutes. Usual recovery.

Case XV. January 24, 1879. Age sixty-seven. Stone weighing two hundred and sixty grains. Time forty-six minutes. Usual recovery.

Case XVI. February 10, 1879. Age fifty. Three hundred and two grains of hard oxalic stone. Time one hour twenty-one minutes. Usual recovery. This was the largest hard stone yet treated by immediate evacuation.

Case XVII. April 7, 1879. Age fifty-four. One hundred and eight grains of hard oxalic stone. Time thirty-five minutes. Usual recovery.

Case XVIII. April 26, 1879. Age forty. Stone of the size of a marble. Time twenty-seven minutes. Usual recovery. Only worthy of record as immediately relieved from great irritation of four years' duration.

Case XIX. June 4, 1879. Age sixty-five. Stone weighing two hundred and forty-two grains, mixed lithic and phosphatic. Time forty-six minutes. Usual recovery.

Case XX. Small stone. Usual recovery. The only case where I was unable to pass a straight tube, from obstruction at the internal meatus.

Case XXI. July 21, 1879. Age twenty-one. A large stone of seven hundred and twenty grains. Measurement two and one fourth inches. Time one hour and seventeen minutes. Usual recovery.

It is unnecessary to say that these operations were done deliberately;

neither the anæsthesia, the crushing, nor the evacuation requiring haste. I have hitherto reported the time of my operations to illustrate and impress this fact, which was a new one. Surgeons familiar with the use of ether do not hesitate to continue anæsthesia almost indefinitely if there is anything to be gained by it. Nor is the bladder itself affected unfavorably by a protracted operation. Indeed, "rapid lithotrity," a name intended to designate a long sitting for the purpose of removing the whole stone through a large tube, calls for greater deliberation and care than the old dilatory lithotrity by repeated two-minute sittings, with an interval of days between them. It is rapid only as a whole and when compared with the old operation.

The details of a case may further illustrate this: for example, the last here recorded, where seven hundred and twenty grains were removed in one hour and seventeen minutes, the stone being the largest but one as yet subjected to operation by the new method. Here four crushings occupied twelve, six, six, and four minutes; and five washings six, four, twelve, and seven minutes respectively, with intervals added. But a very large part of this stone was removed in ten minutes by the first two short washings. The rest of the time was for the most part devoted to a leisurely and careful search for remaining fragments. As performed here now, the operation consists of litholapaxy followed by thorough sounding with a tube. It may be made shorter by not completing it, — by postponing the final exploration. In other words, surgeons may prefer to leave the last fragments for a second operation. This has been proposed by one of the strongest advocates of haste, which is a habit connected with the two-minute sitting, when it was erroneously supposed that damage to the bladder was in proportion to the time occupied by instrumentation. The tradition has so strong a hold on surgeons that cases of rapid lithotrity are still reported in which the operator seems to have been under pressure of some sort to finish the sitting quickly, at all hazards, as if it were essential to do so. And yet the performance of lithotrity against time will probably be soon as obsolete as is now haste in other operations under ether anæsthesia.

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THREE CASES OF SCARLATINA, WITH EIGHTEEN OF SYMPATHETIC SORE THROAT.[1]

BY DUDLEY P. ALLEN, M. D.

At Devereux Farm, Marblehead, during the summer of 1878 were about thirty boarders and ten servants. On July 12th a case of sickness occurred, followed between that and July 29th by twenty other cases, all but one of which were attacked before July 19th. Three of these cases were undoubted scarlatina, all having well-marked prodromes, eruption, high fever, desquamation, and one having albuminuria. No eruption was noticed in any of the other cases. The cases without exception were somewhat varied, but the leading symptoms were increased pulse and temperature and sore throat. Some had added to this digestive disturbances. The throats showed inflamed tonsils and palate. One had a membranous and others had follicular exudation. Some had no exudation. Several of these patients were confined to their rooms nearly two weeks ; most of them but two or three days. A few came to all meals, though suffering from fever and sore throat. The sore throats were pronounced by various able physicians in attendance such as occur in connection with epidemics of scarlatina.

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[1] Extract from a prize essay read before the Boylston Society of Harvard University Medical School.

The patients with scarlatina were seven, ten, and fourteen years old respectively. Those who had sore throats were all adults. Those not sick were all adults, except one boy, who was thirteen years old. Of the three who had scarlatina, none had had it before. Of the eighteen who had sore throat and fever, nine had had scarlatina before, nine had not. Of those who were not sick, nine had had scarlatina, ten had not. Thus those who had previously had scarlatina did not seem more exempt from sore throat than those who had not.

A cause for the sickness was carefully sought. Inquiries made at Beverly, Salem, Marblehead, Lynn, Swampscott, Philip's Beach, Hotels Preston and Clifton, showed very little prevalent sore throat, and an almost entire absence of scarlatina. Thus the disease was strictly local. Causes were sought in the weather, a marsh between the house and the sea, the milk, the cess-pools, the vault, the ice, the wells, and contagion.

(1.) The *weather* previous to the epidemic was very warm and very dry. Just before it there was a sudden change. There were numerous rains; the wind was east and quite cold. That the weather could not have caused the disease is shown by the fact that in the surrounding country, and especially in this immediate vicinity, people were not affected.

(2.) The *marsh* between the house and the sea was about two hundred feet distant from the house. The water in the marsh is but partly salt. This had never caused sickness before, and those most exposed to the marsh this year were not more, if as much, affected as others. Besides, surrounding houses at a varying distance of from four hundred to fifteen hundred feet had no sickness, so that it seems impossible that the marsh could have caused the sickness.

(3.) The *milk* used before the epidemic came direct to the house from the cows on the farm, and continued to be drunk at table during and after it. Those who did not drink milk were equally affected with those who did. No cause for suspecting the milk could be found.

(4.) There were two *cess-pools*, one forty feet, the other further, from the house. Oil of peppermint poured into these showed no connection between them and the house. Those most exposed to exhalations from the cess-pools were least and among the latest affected, so that they cannot have caused the disease.

(5.) The *vault* was separated from the house, being about seven feet distant from a wing. Especial care had been taken with this the present season. Of those who worked and slept in the wing near this a smaller number were sick than of those in the main body of the house, and thus it would not account for the disease.

(6.) The *ice* was furnished by one of the companies supplying Marblehead, and continued to be used throughout the summer. It caused no sickness elsewhere, so presumably it did not here.

(7.) The *wells* were two in number. Chemical analysis showed one to be sufficiently pure, and this was the one used for drinking-water. The second well was contaminated by ammonia and albuminoid of ammonia. That this contamination took place just preceding the epidemic is probable, since the rains at this time would have easily washed surface matters, or sewage from a drain close by, into the well. A month later, on cleaning out the well and analyzing the water which flowed in, no impurities were found. Since large amounts of water had been pumped from this early in the season, and no rain had fallen until just previous to this epidemic, its contamination probably took place immediately before the sickness. The well may have been sometimes used in cooking, but could by no possibility have been used for drinking. Thus, though well No. 2 was contaminated just at this time, the fact that if used at all it was only in cooking would seem to remove it from among the causes of disease.

(8.) *Contagion* was carefully sought as a cause. None was found. If all the cases of sickness can be accounted for from a single cause, this is more natural than to attribute them to various causes.

Scarlatina will do this. The following propositions can be abundantly established by observations and cases of the most reliable medical writers: (1.) That during the prevalence of scarlatina there may occur cases of sore throat, both in those who have previously had scarlatina and in those who have not, and that this may be the only manifestation of the disease. (2.) That these cases of sore throat without rash may communicate true scarlatina to others. (3.) That scarlatina anginosa may be complicated by diphtheritic exudation. (4.) That the period of incubation in many well-authenticated cases has not exceeded twenty-four to thirty-six hours. (5.) That a patient in the first stages of the disease is capable of communicating it to another.

These propositions being true, the only rational explanation of the epidemic would seem to be that the three cases of well-marked scarlatina were accompanied by some eighteen others of scarlatina anginosa without eruption. The first case occurred Friday evening, and showed no eruption. The second case was taken twenty-four hours later, and was subject to exposure to Case I. Within the twenty-four hours succeeding Case II. there were some five cases, the last of these five being the first well-marked case of scarlatina exanthematosa. Thus the first case of scarlatina followed the first of sore throat some forty-eight hours.

All persons in the house were subject to exposure. If the disease had its origin from Case I., the period of incubation in the next case (twenty four hours) is without doubt sufficient for the development of the disease. It is not impossible, however, that there may have been a common cause of contagion to several of the family. Many of these were going to Boston every day, and would have been subject to exposure. Different articles were brought to the house which might have contained the contagium, though none could be traced. Before the sickness various persons called at the house, though after its commencement there was no communication between this house and those immediately surrounding, so that this would account for the fact that none of the neighbors contracted the disease. The theory that the disease may have developed *de novo* is attractive. This can neither be proved nor disproved. This is possible, but contagion is also possible, and cannot be excluded.

The fact that those inoculatory processes which can be best traced, namely, vaccination and venereal disease, never occur spontaneously would render it probable that other diseases dependent upon contagion do not develop *de novo.* The conclusion reached in the epidemic was that three cases of scarlatina were associated with eighteen of sore throat, which might be called the sympathetic sore throat of scarlatina. Since no local cause could be found for the disease, and since contagion was perfectly possible, this is also probable. The contagium might have been common to a large number of the family, or if introduced by Case I. the exposure to this case and the period of incubation between this and those following were sufficient for the development of the disease.

During the present season of 1879 the house is full of boarders, and there are more children among the number than last year. There has been, however, no sickness of any sort.

The precautions taken to destroy all remaining contagion from scarlatina were to wash thoroughly and paper the rooms in which the cases of scarlatina of the last year occurred. The house was also vacant during the winter.

A CASE OF ACONITE POISONING.

BY C. G. CARLETON, M. D., LAWRENCE.

At four o'clock A. M., June 6, 1879, I saw Mrs. S., a widow, age twenty-three, who had been under the care of a physician for so-called Bright's disease. I learned that at midnight she had taken from a trunk, in a dimly-lighted room, a bottle which she supposed contained spts. ether nit., and had poured without measurement into water an amount which she intended to be a teaspoonful. This she had drunk, and then fallen asleep, to be awakened at half past three by pain and general distress. The bottle from which the medicine had been poured was shown me, and was labeled "Tinct. Aconite, Poison," and subsequent inquiry at the druggist's proved it to be from the root. From the best judgment I could form the amount taken was about three drachms. At this time the patient was in bed complaining of extreme pain "all over," and "tingling of the veins." She was in pretty constant motion, throwing herself about the bed, and at times her legs off its sides, and there was a limited amount of spasmodic action; pulse 32, very feeble, wavy, and irregularly intermittent; the respirations were feeble, shallow, and irregular; pupils contracted; no special thirst or dryness of fauces, and no headache; the intellect was clear. A small amount of magnesia had already been given her.

Free emesis was induced by titillation of the fauces, and promoted by copious draughts of warm water. A considerable quantity of undigested food was vomited at first, and afterwards bile and mucus. At 4.50 A. M., her condition at this time being much the same, with the additional symptoms of profuse cold sweating, cold extremities, and constant screams with appeals for relief, I prepared fifteen drops of tincture of digitalis with a few drops of warm water, and gave her one half the amount by hypodermic injection in the fore-arm, and in ten minutes the remainder. These injections were followed at once by quite decided increase in the volume of the pulse, with a slight increase in its frequency. Meantime frictions with warmth were kept up, and a sinapism was applied over the epigastrium. At 5.20 A. M. another hypodermic injection of fifteen drops of tincture of digitalis was administered. I then left her with directions that the head be kept low and frictions continued. At the earnest request of her mother she was permitted to inhale a few drops of "chloric ether," and this produced some quiet. Returning at 6.10 A. M., I found her condition slightly improved, — less sweating and less restlessness; but in reply to the inquiry if the pain were less, she shook her head in the negative, and constantly asked for relief. The pulse was but little better than at the beginning of treatment. I then gave another hypodermic injection of fifteen drops of the tincture of digitalis, and the stomach, which until now had been frequently expelling mucus, being somewhat quiet, I gave a mixture of brandy and ammonia, which, however, was quickly rejected. Sips of brandy were subsequently given at frequent intervals, but not retained. As there had been no dejection for a week, and as the attendants were hardly able to render the assistance which was imperatively demanded, I was unable to use stimulating enemata. I left her at 6.45 A. M., feeling that she was improving; the skin had more warmth, there was less sweating, and the pulse had increased to 42, with less frequent intermissions. There was also less restlessness, although the patient did not admit feeling any better. At 7.30 A. M. I found her sleeping, and she was with difficulty aroused, when she spoke feebly; the skin was warm and dry, and the extremities warm; still inclined to vomit if disturbed; pulse 44. I then gave another and final injection of fifteen drops of digitalis. At 9.30 A. M. the pulse had increased to 54, and at 11.30 A. M. to 72, with the action of the heart normal. The vomiting gradually ceased, brandy, and later other nourishment, was retained, and her subsequent improvement was uninterrupted. Upon the following day I found an erythematous blush upon the arm about the punctures of the needle, accompanied by some pain; but this at my last visit, the third day, was passing away. At each visit she spoke of "tingling," which upon the third day was very slight. The result of the treatment in this case seems to me to reinforce very strongly the arguments which were, I believe, first suggested by Dr. J. Milner Fothergill in 1871 for the physiological antagonism between digitalis and aconite, and which were, so far as I am able to learn, first applied in the human subject by Dobie in a case reported in the *British Medical Journal* in December, 1872.

RECENT PROGRESS IN ORTHOPEDIC SURGERY.[1]

BY E. H. BRADFORD, M. D.

Pathology of Joint Diseases.[1] — Volkmann's monograph illustrates that hip-joint disease, tumor albus, caries of the joint, are terms which convey to modern surgical pathologists a different meaning from that understood by the older writers.

Volkmann claims that his numerous resections have enabled him to study the disease at a stage not investigated before. He believes that fungous inflammations of the joint begin usually, and in children always, not as an arthritis (that is, in the joint), but as a localized ostitis, limited to a spot in the epiphysis next the joint. This is the condition in the prodromal stage, when symptoms are often so slight, and accounts for the fact that patients at this period often move about freely and suffer but little, although the disease may be well established. If this inflammation extends, it becomes more diffuse and the joint is invaded, giving rise to acuter symptoms. Volkmann calls attention to the disastrous effect of joint pressure in favoring extension of the disease, already pointed out by himself and Busch, and regarded as so important by what is called the American school.

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[1] Sammlung klinischer Vorträge, 168, 169. Charakter und Bedeutung der fungösen Gelenkentzundungen.

The primary bone lesion is generally small, and lies below the cartilage, although it may not be directly close to it. It is in the earlier stage a sharply defined opaque or yellowish spot in the spongy portion of the bone, surrounded by bony tissue, injected and slightly thickened. Danger to the joint begins when this cheesy focus breaks down and extends to the joint, causing an inflammatory reaction in joints and in the tissues about. This, however, may not take place, and the focus may remain encapsuled for years.

Even if the disease extends, the joint is not necessarily involved, as Volkmann illustrates by cases where the disease, originating in the epiphysis of the head of the femur, had extended outwards, leaving the joint comparatively healthy. This is of course rare, as the site of the initial bone lesion is usually close to the cartilage of the joint. The places where this circumscribed epiphyseal ostitis occurs most frequently are the olecranon, the condyles of the humerus, calcaneus, internal condyle of the femur, neck and head of the femur, and the acetabulum.

Volkmann does not deny that a primary synovial form of fungous joint inflammation exists, but he considers it as much rarer, and to be seen most frequently in adults. He claims that the fungous joint affection will not result from a simple traumatic purulent synovitis ; it has a character of its own, dependent upon a specific cause, namely, what Friedländer has termed a "local tuberculosis." Wherever the initial bone lesion is found it is always surrounded by miliary tubercles, and these he regards as the exciting cause of the affection. A caseous, non-tuberculous ostitis may exist, as in the lungs phthisis occurs distinct from tuberculosis, but this is not yet established. He believes these tubercles are identical with miliary tubercles elsewhere, but by no means considers that this local tuberculosis is necessarily unfavorable as far as recovery is concerned. He cites cases where he has opened diseased joints and removed portions of the synovial membrane, which on microscopical examination was found to contain miliary tubercles, and yet a cure took place, with restoration of motion.

This matter of tuberculosis of joints is one which at present is attracting a great deal of attention among Continental pathologists. H. Hueter[1] shows by experiments upon animals that tuberculous matter injected into a joint will cause a synovitis granulosa hyperplastica, as it is termed by German writers. From this focus a general tuberculosis may be developed, and the dog die from that cause.

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[1] Exp. Erzeugung der Synovitis granulosa, Deutsche Archiv f. Chirurgie, 1879, xi. Bd. p. 317.

Schüller[1] made the following experiments to prove the relationship between tuberculosis and joint affections: He injected, by means of a subcutaneous syringe, tuberculous sputa and fluid matter from tuberculous human lungs into the lungs of guinea pigs and dogs. He also obliged several animals to inhale for a few days, for half an hour a day, fluid of a similar character. He then subjected the knee-joint in each case to a violent wrench or contusion. With few exceptions an inflammation of the joint followed in cases not killed by the exposure to the tuberculous virus. The character of the joint affection was that of a synovitis granulosa, attended by the development of granulations on the synovial membrane, with extensive separation of the cartilages. In some cases suppuration took place. The cartilages became cloudy, the bony portions of the joint were softer than normal, and the spongy portion of the bone injected. But few tubercles were to be found in the lungs, and none in the joint. The bronchial and mesenteric glands were always swollen.

Similar injuries inflicted upon healthy animals caused no such changes. Extravasation of blood occurred into the joint in some cases, but this disappeared in eight days, and no evidence of inflammation could be traced.

The conclusion that a defective constitutional condition is essential to the development of a joint trouble readily suggests itself. It must, however, be remembered that it is impossible to reason from analogy in comparing pathological states in animals with those of human beings, as certain animals seem particularly affected by the tuberculous virus, a fact on which Volkmann lays great stress.

König[2] quotes Köster, Friedländer, Ranke, as demonstrating the frequency of miliary tubercles in chronic inflammations of joints, and publishes several carefully observed cases to prove that true miliary tubercles are invariably found in advanced joint affections in certain portions of the joint. Tubercles are not seen everywhere, but almost always about the caseous foci at the ends of bones, around sequestra which may be formed, and in the granulations of all parts of the joint. He describes the fungous inflammation of joints as a process induced by a local tuberculosis. Brissaud[3] cites French authorities on this subject. Nélaton long ago pointed out that there was a striking similarity between the pathological changes in the tuberculosis of the lungs and in tuberculosis of the joints, using the term when its meaning was not as limited as it is now. But Cornil[1] has confirmed Köster's observations of true miliary tubercles in fungous disease of the joints. Brissaud records a unique case where general tuberculosis developed from a caseous deposit in a knee-joint, the lung and other organs being entirely free from any old inflammation. Brissaud thinks that fungous arthritis undoubtedly occurs without the coexistence of tubercles, but microscopic proof at present shows that tubercle is the chief element in fungous inflammation of the joint.

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[1] Centralblatt f. Chirurgie, v. p. 43, 1878; also Schmidt's Jahrbuch, 1879, Bd. clxxxi. p. 53.

[2] Deutsche Archiv f. Chir., xi. Bd., 1879, pp. 317, 530.

[3] Tuberculose articulaire, Revue mensuelle de Med. et Chirurgie, June 10, 1879.

The existing knowledge on the subject may be summed as follows: Miliary tubercles are almost invariably found localized about the joint in the cases of fungous arthritis which come to resection, amputation, or autopsy, that is, well-advanced cases. Such cases may recover after resection or amputation, proving that local miliary tuberculosis is not necessarily fatal.

Animals under the influence of the tuberculous virus usually develop a joint disease when that joint is subjected to injury.

It cannot, however, be said to be yet established, as is claimed, that tuberculosis is a *sine qua non* of fungous arthritis.

It is not known that miliary tubercles are found in the early stage of that affection destined to become fungous arthritis or tumor albus. It therefore cannot be known that miliary tuberculosis in the later stage is a cause and not a result, or even a non-essential result.[2]

Treatment of Bow-Legs. — Gibney[3] has found "it is the opinion of many physicians and surgeons of large practice that nature herself will right bow-legs in time, and the advice is given to wait; and the parents do wait until ossification is complete and a cure by mechanical appliances is impossible." Just what cases are destined to recover without treatment and in what cases treatment is necessary is as yet undetermined.

In the early cases, before the child is able to walk, Dr. Gibney advises that the limb be "sprung" three times a day, that is, attempts should be made to bend the limb straight by means of the hand. This is of little use in older children, as the bones are stronger, and mechanical appliances are indicated. He advises a simple form of apparatus, the simpler the better. In his experience he has found no ill effect from the use of apparatus, nor does the apparatus appear to interfere with the nutrition of the limb.

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[1] Archives de Physiologie, 1870, page 325.

[2] Also, Lannelongue, Arthrite tuberculeuse, Bull. de la Soc. de Chir. de Paris, tome iv. No. 4; also Centralblatt f. Chirurgie, No. 20, 1879, p. 333; also, Despres, De l'osteite juxta epiphysaire chronique et de ses suites, Gazette des Hôpitaux, Paris, 1879, liii. 433, 435; also, Gosselin, Gaz. des Hôpitaux, June 24, 1879, page 569. For a different view of the subject, Duret, Progrès médical, June 14, 1879, page 459, La Synovite fibrineuse et ses Rapports avec la Tumeur blanche.

[3] Maryland Medical Journal, May, 1879.

In children four or five years old he thinks little can be done by means of apparatus to correct rachitic deformity, and osteotomy or osteoclasis must be resorted to.

As to choice between osteotomy and osteoclasty, the indications for each procedure have not yet been accurately determined. Dr. C. T. Poore, of New York, has operated on twelve children varying in age from two and half to thirteen years. The results were satisfactory in all the cases. The only ill effects recorded were a slight exfoliation of bone in one case, and slight suppuration in two cases, but not enough to prevent complete recovery. Dr. Poore prefers the chisel to the saw in performing the operation. He operated antiseptically in his earlier cases, but in the later cases antiseptic dressings were applied, with spray. Care should be taken that the edge of the chisel does not project beyond the crest of the bone, and in one case the anterior tibial artery was wounded in that way. He advises the insertion of carbolized horse-hair through the wound and a counter-opening, in order to secure drainage, removing this in a day or two. The limb is placed in a zinc splint extending from above the knee to below the foot, and a week later is put up in a plaster-of-Paris bandage. Union takes place usually in four weeks.[1]

Dr. A. T. Cabot reports five cases of successful osteoclasis in rachitic deformity.[2] The result was excellent in all the cases. An autopsy was made on one of the patients who died soon afterwards of an intercurrent affection. It was found that the fracture had taken place without any splintering, and the union had been so perfect that the seat of the fracture could with difficulty be seen.

Osteoclasis is of course to be preferred to osteotomy where it can be done. Dr. Cabot shows that it is practicable in more cases than has been supposed, and that the operation, as far as evil results are concerned, may be considered a trifling one.

The danger of splintering, which suggests itself, appears to be slight, for the reason that the fracture is of the nature of a green-stick fracture.

Dr. Poore found in some of his cases that the bone was unusually hard to the chisel, showing that in rachitic deformities, even in children, the bone is not necessarily soft. In cases where there is danger that the fracture in osteoclasis will not take place in the exact point desired, on account of thickness of the bone, the method used by Dr. Porter in one of the cases reported by Dr. Cabot recommends itself. Holes were drilled into the bone at the place at which it was desired that the fracture occur, and the osteoclast used in the usual way.

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[1] Louisville Medical Journal, July 26, 1879, page 45 ; also New York Medical Record, April 26, 1879. For other references on this subject see Boston Medical and Surgical Journal, April 18, 1878, page 505, and Med. Chirurgical Review, 1874, page 148; Med. Times and Gazette, February 2, 1878; Ibid., May 12, 1877, page 516 ; Dublin Med. Journal, May, 1878, page 464 ; Lancet, December 28, 1878; London Medical Record, October 13, 1875, page 589; British Medical Journal, 1879, vol. i. 586, 656; Glasgow Medical Journal, 1879, xi. 224, 226, 375, 377.

[2] Boston Medical and Surgical Journal, August 14, 1879, page 217.

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DEDICATION OF THE NEW LIBRARY HALL OF THE NEW YORK ACADEMY OF MEDICINE, OCTOBER 2, 1879.[1]

DR. BARKER now arose to make the opening address, which was an exceedingly happy effort, and admirably adapted to the occasion. After paying a tribute to the labors of the subscription and building committees, and complimenting the architect and builder, he went on to say: "We have now met to dedicate this Library Hall to the high purposes for which many have labored earnestly, and many have contributed to the full extent of their hard-earned means, but which would not have been accomplished at the present time had not our noble benefactor come forward with a truly munificent donation, and crowned with success the efforts to secure for the meetings of the Academy and other medical societies which are working for the same end a well-lighted and well-ventilated hall, and a home for all the literature of our profession. May we not hope with confidence that the meeting of this evening will begin a new era in the history of the New York Academy, and that these rooms will be a central home in which the profession will find it pleasant and profitable to work together for mutual and public improvement, for the advancement of science, for the promulgation of new truths, the development of progression, skill, and, may I not add, the cultivation of those social graces which bind us in the friendly ties of the common brotherhood of a useful and an honorable profession? Shall we not make this Library Hall the Mecca to which the profession from all parts of the country will desire to make a pilgrimage, feeling well assured that they will be welcome to a library which contains the accumulated treasures of the literature of the past on every topic pertaining to medical science, and the current and periodical literature of the present day, so necessary for all who would keep abreast with the rapid advance of science? The founders of this Academy, many of whose portraits decorate our walls this evening, 'builded better than they knew.' On a former occasion it was my privilege to show how great has been its influence in stimulating work in the form of contributions to medical literature, and I surprised many by the assertion, which cannot be controverted, that a physician whose library consists exclusively of the works of Fellows of this Academy has a better and more useful working library than belonged to a large majority of the profession in this country when the Academy was founded. The future rank which the profession of this city will hold, or, to give expression to the same idea in a different way, the future character of the Academy of Medicine, is in the hands of the young men who soon are to fill our places.

"If time would permit, I could give conclusive demonstration that we have every reason to anticipate that our successors, as regards numbers, abilities, acquirements, mental activity, high ambition, and useful, creditable work, will far surpass their predecessors. With the great increase of numbers competing, it will require superior culture, greater talent, and more persevering industry for individuals to attain equal prominence with some of their predecessors. This is not a misfortune, but a blessing, to the profession, and will prove a boon to the Academy. Young men, we, who soon are to give place to you, salute you. It is but a few years since a young and unknown assistant surgeon in the army began to develop such ability and genius, such an instinct for seizing opportunities, such a capacity for creating circumstances, such a power of compelling everything to work for the ends which he sought to attain, and such a breadth of scope in his great schemes that there has resulted as the fruit of his work one of the most remarkable medical libraries now in existence. But he has not stopped with this work. His bibliographical labors have been immense, and are of incalculable value to the medical scholarship of the whole country. In addition, however, he has planned and supervised the construction of a hospital which, when completed, will, in the opinion of those competent to judge, surpass in excellence all others in the world, as regards its fitness and adaptation for the purpose for which it is designed. Nor can I omit some reference to a great work which he has done in connection with the organization of the National Board of Health, through the agency of which we may confidently hope that in the future we may be spared those terrible epidemics which have brought so great distress and sorrow in some parts of our land. I refer to what this gentleman has done, not for the purpose of paying a personal compliment, but to emphasize an illustration, and enforce the moral that if the genius, ability, and energy of one man can accomplish so much, stimulating, swaying, and educating the whole medical mind of the country, what ought the combined talents, learning, and labor of such an organization as the New York Academy of Medicine to accomplish in the future? Shall we not do as much for the elevation and advancement of the profession through the efficient work of the young men who are coming up as has been done by one Billings? Remembering what he has done, we can forgive him if in former days he has been instrumental in drawing away a large number of most valuable books to glorify a library in the political metropolis of the country which ought to have been retained in the commercial and intellectual metropolis of the country, and should now be on the shelves which surround us. I beg pardon of our Boston friend, who now honors us by his presence, but when I speak of New York as the intellectual metropolis, I refer to quantity, and not to quality.

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[1] **Concluded from page 527.**

"We may congratulate ourselves on our success in so far filling the shelves of our library; but as yet we have hardly begun. I know of many precious treasures in the form of valuable libraries that are destined in the future to find their home here. The families of those who have been Fellows will learn to know the importance of the mission of the Academy, and will inherit an interest in its prosperity, and we shall thus have the efficient assistance of womanhood to cheer us on. Already we have had the evidence of this feeling transmitted to a daughter of one of the original founders of the Academy.

The name of Samuel Pomeroy White, formerly professor of surgery in the Berkshire Medical College, will always have a place in surgical literature as that of the young surgeon in the country who first successfully tied the internal iliac artery. The name of Mrs. Hartley, his daughter, will always have a place in the annals of the New York Academy of Medicine as one who honored the memory of her father by her generous and unsolicited contributions to its aid on three different occasions. As the purposes and aims of the Academy become known to the community at large, as the good work that it is expected to accomplish becomes more and more apparent, and as the rich and cultivated class of this great city grow to appreciate the importance of and necessity for a medical profession of the highest order as regards talent, acquirements, and devotion to their calling, and as they gradually learn that all this that we are doing is not for the purpose of putting money into our own pockets, but that it is only accomplished by taking money out of our pockets, may we not confidently hope that some of the wealthy will have the sagacity to perceive that by aiding us they become public benefactors? May we not anticipate that some Johns Hopkins will give us the means to secure a home worthy of the profession of such a city, like the noble and imposing edifices now belonging respectively to the Royal College of Physicians and the Royal College of Surgeons of London?

"But before we can expect such a result we must first demonstrate our worthiness and prove our competency to hold such a trust. Although our financial position is now good, inasmuch as our income more than pays our expenses and the interest on the mortgage of $10,000, our only liability, yet the existence of a debt always justly creates distrust. If, therefore, some of our number who possess abundant means, whether acquired by inheritance or through professional success, due to great talent, untiring industry, wise prudence, and judicious investments, should determine to relieve the Academy of all odium of debt, the shock of the announcement that this mortgage had been lifted would be borne by us all with manly courage."

Before unveiling a beautiful marble bust of Mr. Spencer Wells, which he had recently purchased in London as a present to the Academy, Dr. Barker spoke for a few moments on the subject of ovariotomy, which he characterized as undoubtedly the greatest surgical achievement of the present century. After alluding to the recent dedication of the monument to Ephraim McDowell, at Danville, Ky., he said that many of those present could remember when the operation was considered not only entirely unjustifiable, but as a really criminal procedure. And now one gentleman sitting upon the platform (Professor Thomas) had performed it in twenty-two successive cases without a single death. The great work of the lamented Peaslee had been fittingly dedicated to McDowell and Wells; and as a lasting memorial had already been devoted to the former, he thought it only right that in the halls of this Academy, which included upon its roll the names of Peaslee, Thomas, Sims, and Bozeman, this marble tribute should be set up in honor of the latter, who had now performed the operation of ovariotomy nine hundred and fifty-eight times. The bust, he said, had been shown at the late exhibition of the Royal Academy in London, where it had been much admired. Having quoted a critical notice of it from the *British Medical Journal*, he added that the expression upon the features was precisely that of the great ovariotomist when making a diagnosis. He explained, moreover, that the bust possessed peculiar interest from the fact that it had been executed by one of our own profession, Richard Liebreich, the distinguished ophthalmologist. Dr. Barker also presented as a gift to the Academy a massive chair and reading-desk for the president and a table for the secretary, after which he closed his address as follows: —

"There is an old Greek proverb, attributed to Hesiod, that 'half is better than the whole,' which has often occurred to me as a wise one, to be remembered by those who read papers before learned societies. The number of speakers who are to follow, and whom I know you are impatient to hear, renders this proverb peculiarly pertinent for me on the present occasion. I will therefore conclude my remarks by expressing the hope that the New York Academy of Medicine will ever regard this as a memorable era in its history, and will this evening take a new departure, which will be followed by a glorious career of usefulness and influence that will in all the future remain a monumental tribute to the high purpose, wise forethought, and noble liberality of Abram Dubois."

The president then introduced Professor Ackland, of Oxford, who took this occasion to acknowledge the courtesy which he had everywhere received at the hands of the profession in America and of the American people in general, who still seemed to entertain the warmest feelings towards the mother country. This was the second visit that he had paid to the United States. The first had been made twenty years ago, and at that time he had studied our hospitals, asylums, and other similar institutions very thoroughly, and on no occasion since, upon which he been called to speak on such topics, had he ever neglected to give American hospitals their well-deserved meed of praise. Since then he had always felt the deepest interest in what was going on in this country, and especially during the late war, as he was personally acquainted with many of those taking the most active part in it on both sides, as well as with many of the localities in which its bloody scenes were enacted. And now that he returned after twenty years, he was astonished and gratified to behold the progress that had been made here, notwithstanding the intervention of this great struggle, which he characterized as the most tremendous civil convulsion ever known in the history of the world. The growth of cities, the advance of science and education, the multiplication of colleges, hospitals, and noble institutions of every kind, the vast work that was being carried on in the publication of original medical literature, were all most surprising. Thus, he would cite the new building of the New York Hospital as an instance. He would not say that it was by any means the best that could be desired for the purpose for which it was intended, but certainly no expense, no artistic embellishment, no means, whether substantial or æsthetic, had been spared in its construction. Some people claimed that the modern hospitals were too luxuriously fitted up; but why should the suffering poor not be well taken care of, and to what nobler object could a wealthy philanthropist devote his money than to the providing of such comforts for the alleviation of their miseries?

No one could fail to be struck with the progress recently made in this country in medical education and science, and when he saw about him such men as Gross, of Philadelphia, Shattuck, of Boston, Billings, of Washington, and the shining lights of the profession in New York, too numerous to call by name, well might he be stirred to enthusiasm and infused with hope for the future. But still he saw one difficulty arising, one hard problem to solve, and that was the bringing about of a uniform standard for the qualification of regular practitioners of medicine. This was perplexing enough in Great Britain, where there were only nineteen institutions concerned in the matter, but it must be still more so in the United States, where there were nearly one hundred medical colleges authorized to confer degrees. Medicine was a subject for humanity. Its progress concerned the good of the whole world, and politics should never be allowed to mingle with its affairs. In England, Scotland, and Ireland, an effort was now being made for the publication of a list of all properly qualified physicians and surgeons, and as for those whose names did not appear in this list, they would be left to themselves and the public. This, he believed, would result in much good, and he felt confident that the same course would be eventually adopted here.

He next spoke of the establishment of a National Board of Health within the last twelve months, which he regarded as a matter of extreme interest, both in a political and a medical point of view. It was incredible to him, however, that there should be any conflict between it and any state or municipal authorities. The hindrance of disease was one of the great objects sought by modern medical science, and he thought that all measures with this end in view should be forwarded in every possible way. We needed professorships of hygiene in all the colleges, and also one or two chairs of comparative national health, which should be endowed by some wealthy citizen and filled by men specially fitted for the position, to work up the statistics and collect the vast stores of information which might be gathered in a scientific investigation of the subject among the different countries of the world.

It was announced on the programme that Mr. George William Callender, surgeon and lecturer on surgery, St. Bartholomew's Hospital, London, would next make some remarks; but the chair regretted to say that a telegram had been received from Mr. Callender, stating that he was ill at Lancaster, Penn., and could not consequently be present. In his place, however, he would introduce a certain "gay deceiver" from Philadelphia, Professor Gross, who had refused all his earnest entreaties to come on to the dedication of the new hall, and had then finally turned up after all in the most delightfully unexpected manner.

In the beginning of his remarks Dr. Gross paid a tribute to the memory of Dr. John Watson, one of the founders of the Academy, and regretted that his very valuable library had not been given to the society by his heirs. He wished to call attention to the fact that the writings of the fathers of the profession were far too much neglected at the present day, and he believed that the time was not distant when great pains would be taken to present these writings anew, either in the form of abstracts or of complete editions. Not all that was worth knowing was to be found in the books of this country or of this age, and much that might be learned from them was really derived from the fathers, but, being set forth in a different form, was palmed off as original. He also lamented the fact that so much money was thrown away by the wealthy which might benefit mankind if it were bestowed upon such institutions as the New York Academy of Medicine, and referred particularly to one case where three millions of dollars were swallowed up in lawsuits, which might much better have been given to such worthy objects.

Dr. Billings was the next speaker. He rejoiced, he said, to see the evidence of progress which such an occasion and gathering as this indicated. He had come to listen, and not to speak himself, but nevertheless he recognized that it was perhaps due to the Academy that he should give some report of its other library (at Washington), to which allusion had been made by the president. That the National Medical Library was what it was to-day he thought was probably due to a great extent to the New York Academy, since it was no doubt owing to the influence brought to bear by some of its Fellows on the New York senators and representatives in Congress that the necessary appropriations had been made. The library now contained fifty thousand volumes, with an equal number of pamphlets, and was believed to be the best working medical library in the world, on account of the completeness of its files of journals. It was not difficult for any specialist, for instance, to collect all the monographs upon the subject in which he was interested, but this was not the case with articles in journals. The efficiency of a library, he continued, depended to a great extent on its catalogue, and he then explained the nature of the new index catalogue, for the publication of two volumes of which an appropriation had been made by the last Congress. A catalogue was never finished, and just how it could be made to embrace the current literature of the day was a somewhat difficult problem, for the solution of which various plans had been proposed. One was by the monthly publication of the *Index Medicus ;* but he thought this would be hardly practicable as a permanent thing, on account of the comparative smallness of its subscription-list. He had been somewhat amused in looking over the latter, and said that he found that thirty-three copies were taken in England, nineteen in Germany, five in Japan, and one in France, while no less than one hundred and sixty-nine were taken in New York city alone.

Professor Shattuck, being called on by the chair, made some humorous remarks, and also gave an interesting account of the Medical Library Association of Boston ; after which Prof. Willard Parker gave a sketch of the origin and early history of the New York Academy. Forty years ago, when he first came to the city, the affairs of the profession were in a very disastrous condition. The County Medical Society had fallen into a Rip Van Winkle slumber of twenty years, the adherents of two rival colleges were at swords-points, and there were various smaller cliques, which prevented any unanimity of action or any scientific progress in the profession as a whole. Now, however, there was a wonderful change. The County Society and the Academy were the two great controlling bodies in it, and not only was their influence felt among medical men, but it could also be brought to bear with very considerable weight upon the community at large, whenever occasion required.

He closed by offering a resolution declaring that the opening of the new Library Hall was a demonstration of the wisdom and zeal of the founders of the Academy, and was an occasion upon which its present Fellows were to be heartily congratulated.

In rising to second this, Prof. Austin Flint said that he congratulated the Academy on having the home which it had gotten for itself enlarged and made beautiful by the munificence of a brother, on the presence of its distinguished guests, and on the eloquence of the addresses that had been made. The resolution was unanimously carried.

The president then read a communication from a gentleman present offering to be one of twenty, or one of forty, to pay off the ten thousand dollar mortgage of the Academy, and said that he trusted that after they had partaken of the "loving cup" nineteen others would be found to come forward in the same handsome manner. All the company then adjourned to the rooms below, where an elegant collation, served by the admirable Pinard, had been generously provided by Dr. Barker.

DR. RAFINESQUE ON CHRONIC INTESTINAL INVAGINATION.[1]

The symptoms of the diseased condition known by the name of intestinal invagination or intussusception are subject to great variation, depending chiefly upon the presence or absence of strangulation. When this complication exists the disease has a rapid, *acute* course, and presents well-marked symptoms, which are generally sufficiently clear and familiar to allow a correct diagnosis to be made.

Instances, however, exist in which strangulation may be wholly absent, or may not supervene until very late, after a protracted course covering many weeks or months. The *chronic form* of invagination observed in such cases is less familiar to the practitioner than the acute form, and the real nature of the disorder is liable to escape detection till after death. Thus, out of fifty-six cases collected by Rafinesque, in only ten was a correct diagnosis made. The list of diseases erroneously diagnosticated in the remaining cases comprised the following: fæcal accumulation (two cases); hepatic colic; lead colic; pelvic abscess or hæmatoma opening into the rectum; worms (three cases); "a fever;" prolapsus of the rectum (three cases); intestinal obstruction (two cases); malignant disease (two cases); inflammatory affection; cancer of the bowel (three cases); intestinal tumor; cancer of stomach; cancer of uterus; gastric ulcer; gastric dyspepsia; peritonitis; tubercular peritonitis; ulcerative gastro-enteritis with tubercular peritonitis; parenchymatous gastro-entero-colitis; poisoning; chronic dysentery; enterorrhagia.

Notwithstanding, however, the difficulties of diagnosis encountered in these instances, Rafinesque firmly believes that cases of this description can and should be recognized during the early and often remediable stages of the disease. In his essay the symptoms observed in a large number of cases are analyzed, and the diagnostic features are carefully and minutely set forth. The first requisite of a correct diagnosis is that the existence of a chronic form of invagination should be borne in mind. In a doubtful case, where the presence of this disease is suspected, we would advise the practitioner by all means to consult Rafinesque's very able essay. Nowhere else will he find so much information regarding the diagnostic symptoms of this obscure and painful disorder. The subject of the treatment, both medical and surgical, is also carefully considered.

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[1] *Etude sur les Invaginations intestinales chroniques.* Par le Dr. F. G. Rafinesque. Paris: J. B. Baillière et Fils. 1878. Pp. 282. With lithographic plate.

THE NEW TREATMENT OF STONE.

There has perhaps been no greater revolution in any department of surgery in a brief space of time than that which has occurred during the past two years in the management of stone in the bladder. When lithotrity was first introduced it was thought that the dangers and terrors of lithotomy were to be a thing of the past, a memory of the Middle Ages; but gradually it was discovered that this operation was also not without its sufferings and dangers, and many ingenious instruments and much skill and practice were employed to reduce these to a minimum. The perfection of the modern lithotritist was supposed to have been realized in that distinguished London surgeon, Sir Henry Thompson. Here was the man who could count his cases by the hundreds, whose delicate touch with an instrument of his own device was supposed to have conquered that dread sequel of the operation, cystitis, if it was within the limits of human skill and ingenuity to accomplish it. The accumulations of a few great surgeons in the English metropolis made it possible to collect valuable statistics on the different modes of operating, to compare the old with the new, lithotomy with lithotrity. An inventory was accordingly taken some two years since, when, alas for modern science, the prestige of the latter operation was evidently about to wane. In vain had Sir Henry perfected himself in his art, in vain had he reduced the manipulation of the bladder to an almost incredibly brief space of time; many of his colleagues, led by Sir James Paget, were about to tender their allegiance once more to lithotomy. It was interesting to those whose privilege it was to witness the experiments quietly going on in this country at that time to watch the ebb and flow of the discussion, and to note with no small satisfaction how thoroughly each master stood committed to his own favorite procedure. As lithotrity was on the point of being abandoned, the key to the problem was discovered in the new operation which Dr. Bigelow has given us, rising, as it were, from the very ashes of the old. The establishment of the principle that the dangers of lithotrity were due to sharp fragments and decomposable *débris*, and not to the use of instruments, was a genuine and valuable discovery. A few years ago Mr. Clover invented a syringe to remove the sand left by the lithotrite, but the diameter of his tube did not permit fragments of even moderate size to pass, and its employment produced, therefore, no modification in the operation of lithotrity. The large tubes, of a size supposed impracticable before Otis had shown the capacity of the human urethra, and the evacuating apparatus devised by Dr. Bigelow first made a thorough emptying of the bladder possible. Here, then, was an operation which rids the bladder of a stone as thoroughly as a lithotomy, but leaves no wound behind it.

Dr. Bigelow's new lithotrite is a valuable instrument, but should not be regarded as an inseparable part of his method. The ball handle, the locking of the screw by a turn of the wrist, the rectangular blades, and the peculiar construction of the jaws to prevent impaction of fragments are great improvements, as is also its size, which enables the operator to crush the hardest as well as the largest stone. This instrument without the essential features of "rapid lithotrity with evacuation," however, would not have saved the traditional operation of lithotrity.

The discussion which has followed has shown the versatile Sir Henry to be as skillful with his pen as with his lithotrite, but even this has not availed him to convince the world that he had been previously familiar with the principles of litholapaxy, namely, the tolerance of the bladder to instruments, and its complete evacuation with large tubes.

The leading journals both of this country and of England have placed the credit where it belongs, and even Sir Henry himself has finally yielded to the inevitable. This is an American invention, and one which cannot fail to promote the prestige of Boston and the Massachusetts General Hospital as sources from which so many surgical innovations have emanated.

THE HARVARD DENTAL SCHOOL.

The professional community is hardly aware of the work which has been done at this school during the last eleven years, — how thorough and of what high grade the instruction has been. We take occasion to call attention to it in noticing some changes which have recently occurred, and others which are contemplated upon the resignation of Dr. G. T. Moffatt. Dr. L. D. Shepard has been chosen professor of operative dentistry. The plan of the new head of this department is to associate with him a number of gentlemen as clinical instructors. Among these are Drs. John T. Codman, Samuel F. Ham, T. O. Loveland, Charles Wilson, and E. P. Bradbury, of Boston, and A. W. Jewell, of Newton. Each will devote one afternoon per week to practical instruction in the dental department of the Massachusetts General Hospital, where, during the past year, no less than eight thousand operations were performed. Teeth are filled gratuitously, a small fee being charged when valuable materials are used. Professor Shepard will also give a complete and progressive course of didactic lectures upon the theory and treatment of diseases of the teeth and mouth, the correction of irregularity of the teeth, and all the manifold duties of the operating-room, in which he expects the coöperation of eminent practitioners of this vicinity and from other parts of the country.

The mechanical department has for years been under the charge of Prof. T. H. Chandler, who is also the dean of the school. Here are taught the manufacture and adaptation to the mouth of artificial teeth of every kind. There will be no change in the conduct of this department except to make, if possible, its instruction more thorough than before.

The influence of this school upon education in dentistry throughout the country has been strong. Most of the thirteen colleges in the United States graduate students after attendance upon one course of instruction, if they have already been in practice five years, the course being only four months long; some continue five months, and one — the University of Michigan — six months. The course in the Harvard school is eight and one half months long, and a student must attend two full courses. The first year also is identical with that of the medical school, and the students of the two schools are educated together, and pass the same examinations at the end of the first year. To this extent the medical and dental schools are identical. In their second year they are taught separately, except in general surgery.

There is no endowment for this school, the professors having performed their duties gratuitously, the fees of the students being barely sufficient for the running expenses. It is proposed to solicit aid from the public chiefly for the purpose of forming a building fund, and it is possible that when the new medical school is built there may be a wing for the accommodation of the dental students provided for in this way. There is probably no school of the kind in the world where so thorough an education is given, and we wish it success in its new undertaking.

MR. BERGH AND NEW YORK VIVISECTIONISTS.

About a fortnight ago Mr. Henry Bergh addressed a communication to the mayor of New York, in which he made an appeal for the prevention of the sale of dogs captured in the streets to the medical faculty for the purpose of vivisection. In the course of it he says: "Will not the more conscientious of the medical profession interpose at once their commanding influence to prevent these scientific atrocities, and win for our country the proud distinction of having been the first completely to end them? Can any philanthropist or patriot unmoved behold the youth of our land initiated into such scenes, and, instructed by teachers whom they have been taught to regard with respect and veneration, thus perpetrate such revolting cruelties, with the specious idea that they are prosecuting science?"

One or two medical men having ventured, in reply to his sweeping assertions, to uphold the practice of vivisection when properly conducted, Mr. Bergh has now come out in the papers with a second long communication, in which he endeavors to annihilate his opponents, and calls down all manner of maledictions upon the devoted heads of vivisectors, great and small. In this he incidentally proves to his own satisfaction that Harvey did not discover the circulation of the blood, and states that Harvey nowhere claims that it was by means of vivisection that he acquired his fame, but distinct'y mentions on the other hand, that it was reflection which led to the discovery. He denies, as one of the medical writers asserted, that "nearly all that is known in physiology has been obtained by experiments on living animals," supporting his position by the authority of such names as those of Nélaton, Sir William Ferguson, and Sir Charles Bell, and then takes up the statement of another that "vivisection, as practiced in the colleges of this city and country, is conducted while the animals are under the influence of ether or chloroform, and are kept in that condition until death." On this point he says: "The celebrated Baron von Wiln, in an autograph letter to me, asssures me 'that the greater part of the experiments on animals are now devoted toward the brain and its reference to the nervous system, and hence the poor animals, while being tortured to death, are not even allowed the benefit of anæsthetics, as these would interfere with the inferences drawn from experiments.' This latter fact has been repeatedly admitted to me by leading surgeons of this city, themselves advocates of vivisection." The conclusion of the article is devoted to instances of exceptional cruelty in such experiments, and he prefaces it with the following fierce paragraph: "At the head of barbarous and unfeeling vivisectors stand the French and Italians, the Austrians and Germans next, and lastly the English. The wretch Magendie, before alluded to, *was undoubtedly the most abandoned criminal that ever lived.* Where the pitiless deeds of our own countrymen will ultimately rank them in this damnable record, time will show."

MEDICAL NOTES.

— Professor Virchow has gone to London to assist Dr. Schliemann in completing the inspection of the collections of the latter gentleman from the Troad, now lodged in the South Kensington Museum. Virchow will furnish a chapter in the forthcoming work of Dr. Schliemann. It will give the result of the ethnographic and geological investigations made by him in his recent visit to the seat of Schliemann's excavations in the Troad.

— Dr. Sayre recently applied his plaster-jacket to a selected case before a number of physicians in Paris. — The celebrated French surgeon, Chassaignac, lately died in Versailles at the age of seventy-four years.

— "Phare's method for the treatment of colic," says the *Medical Press and Circular*, "consists in *inversion*, — that is, simply in turning the patient upside down. Colic of several days' duration has thus been relieved in a few minutes. The patient may take the elbow-knee position, or lie (face down) on the edge of the bed, with head and shoulders hanging down. Complete inversion, however, is best. The mechanical aid, in giving vent to gases, is perhaps the most efficient element in the cure."

— A Vienna correspondent of the *Canada Medical and Surgical Journal* gives some statistics in proof of the recent assertion that the modern treatment of disease in Germany is deteriorating. In Bamberger's clinic of twenty-seven cases of pneumonia seventeen died; twenty-four per cent. of all cases of typhoid fever die; facial erysipelas is "frequently fatal," etc.

— Dr. Westphal recently applied various tests in the case of a murderer alleged to be insane. One of them was intoxication, the man having been supplied with brandy. In this condition he was plied with questions, with the belief that if his delusions were simulated he could not keep up the deceit while in liquor. The man, however, persisted in his insane statements, and therefore was considered actually demented.

— Dr. Neisser, of Breslau, reports in the *Centralblatt für med. Wis.*, July

12th, the discovery of a micrococcus in gonorrhœal pus. Its outline is circular, or oval; it is not colored by inulin nor *methylgreen*; is usually in colonies of ten, twenty, or more, surrounded by a membrane, and generally found on the upper surface of the pus cells, rarely on epithelial cells. Neisser found these bodies in the discharges of both sexes, in both acute and chronic cases. He found them in the eyes of various cases, and believes them to be characteristic of the disease. As to their pathological significance he is silent. Meanwhile, let us not forget the fate of "*Löstorfer corpuscles.*"

— The latest aspirants for honors as discoverers of anæsthesia are Dr. Wilhite, of South Carolina, and Dr. E. H. Bowne, of Fredonia.

PHILADELPHIA.

— The introductory lectures at the medical colleges were delivered October 1st, by Prof. Theo. G. Wormley at the University of Pennsylvania, who chose for his subject Modern Advance in Chemistry, and by Prof. Roberts Bartholow at the Jefferson College, the latter selecting for his theme The Importance of a Knowledge of the Physiological Action of Drugs as the Basis of Scientific Medicine, and incidentally discussed the question of vivisection, which, when properly conducted, he declared to be valuable and justifiable, not only as a means for the advancement of science, but also as an aid in imparting knowledge.

— The friends of Professor Rand (who resigned his position at the Jefferson College about two years ago, on account of failing health) will be glad to learn that he has greatly improved, and is now in better condition, both mental and physical, than he has been for years.

CHICAGO.

— Dr. D. W. Graham, professor of anatomy at the Woman's College, and editor of the *Medical Register*, is about to leave for the Southwest, to be absent several months. He goes for rest and a restoration from sickness, — the consequences of overwork. The best wishes and hopes of the profession of the city go with him in his journey.

— A case of unusual interest has recently occurred at the Cook County Hospital, in the service of Dr. E. W. Lee. A man was admitted with an enormous cirsoid aneurism of the scalp, covering the whole top of the head. The disease started in childhood from the effect of a blow, and had steadily increased in extent. Shortly before admission it had ulcerated, and a dangerous hæmorrhage had taken place. The opening was padded, and the pad secured by a Martin's bandage carried about the head.

As there was no chance of closing the opening without formidable operative procedures, it was determined to ligate in turn both carotids, to lessen the blood pressure within the aneurism; to extirpate then the tumor, secure vessels, and hope for union and a cure. Except in the double ligation of large vessels, this was an operation that had been several times made with success. The size of the aneurism made it necessary to take this unusual precaution to control hæmorrhage.

The first carotid was successfully and easily tied, the result being a slight tendency to coma and stoppage of respirations. The patient promptly recovered from these symptoms, and in a week the second carotid was ligatured. Death seemed imminent before the patient left the table; respiration and pulse failed greatly, but afterward became satisfactory.

It was the design to extirpate the tumor at this time, but this part of the operation was postponed. Symptoms of aphasia and right hemiplegia soon supervened, which never disappeared.

In four days the final operation was made; the aneurism was entirely removed. Again the patient came near dying on the operating table. He rallied, but in the evening of the next day exhaustion was so profound that transfusion of blood was performed; this operation was repeated at midnight, a total of twenty-eight ounces of blood being introduced. The result of each transfusion was to bring down the pulse to more nearly a normal rate and make it stronger. The case now got on well for two or three days, when a chill announced the accession of septicæmia. Death occurred in about five days from the last operation. A post-mortem examination was not allowed.

— The health commissioner has lately been prosecuting the adulterators of milk. Inspector Sawyer was set to examine a number of specimens of milk chosen at random from the dealers. He found them all to be deficient in cream, but excessive in water. Although attempts to convict the dealers in court have not been successful, it has been noticed all over the city that the quality of the milk delivered to consumers has suddenly greatly improved. Health Commissioner DeWolfe has not given up the warfare, but threatens to move upon the enemy again, and with improved legal ammunition.

LITERARY NOTES.

— Dr. W. Allen Sturge, of London, has recently read a paper at the meeting of the Institution of Surveyors, in which he compares the methods of sewerage in France and England, and describes the sewage irrigation near Paris. Of the nine hundred and fourteen acres now fertilized with the sewage of that city, nearly seven hundred are devoted to market-gardening, the produce being readily sold, even at the largest hotel. The amount of land under treatment has increased each year since the beginning of the experiment, twelve years ago, and in spite of complaints of bad odors there can be no reasonable doubt that Paris will before long follow the example of Berlin, and deal with all the sewage of the city in this manner, the alleged saturation of the soil and injury to health having been shown to be unsupported by facts. As in Berlin, the expense of irrigation is much greater than the returns from it. In Paris the sewage is taken or refused at pleasure by small tenants or land owners. In Berlin the city has bought the land, and controls the whole matter. It is an interesting fact that the Essex Reclamation Company of London still hope to carry out their project of reclaiming the sands on the north side of the mouth of the Thames, and to dispose of the one hundred and twenty million gallons of sewage daily from that city by irrigation. While many chemists and others still consider the sewage question far from its final solution, yet it is plain that sewage irrigation continues to be the most approved method of disposing of the filth of cities. Even the precipitation processes of Leeds and Birmingham and the much-talked-of dry-removal system of Rochdale and Manchester were adopted only after failure to get land for irrigation.

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THE BRITISH MEDICAL ASSOCIATION.

Professor Savory's Address. — Views of London Surgeons on the Antiseptic Question.

Mr. Editor, — The recent meeting of the British Medical Association, held at Cork, has been allowed on all hands to have been more than usually interesting and successful. The addresses delivered by the president of the association and by the presidents of the various sections were all of them good, whilst those in medicine and surgery, by Dr. Hudson and Mr. Savory, attracted special attention for their excellence.

Mr. Savory's address consisted of an energetic attack on the Listerian system of treating wounds, and it is especially worthy of note on account of the rarity with which that system is at the present day subjected to opposition in public in this country, on account of the high status and acknowledged logical acumen of the surgeon by whom the attack was made, and also by the fact that he appeared as the representative of the surgical staff of St. Bartholomew's Hospital, that he spoke not only on behalf of himself, but of his colleagues, and that he was able to back up his opinion by an appeal to carefully compiled statistics derived from the practice of a hospital with nearly seven hundred beds, and extending over a period of several years. For the sake of those who may not have read the address in the original — which all should do who have the opportunity — I will give a brief summary of Mr. Savory's conclusions. He admitted the existence of only one kind of blood poisoning attendant upon open wounds, considering that septicæmia and pyæmia must be looked upon as the same disorder, differing only in degree. The cause of this blood poisoning is the introduction of putrid matter into the blood, the agents in the production of this putrefaction being solid organic particles, — the so-called germs. As to the exact nature of these germs he was silent, and he was equally reticent on the much-vexed question of the relation of bacteria to putrefaction, confining himself to the statement, now everywhere admitted, that the presence of bacteria may be taken as evidence of putrefaction.

If blood poisoning occurs there must be two conditions present, namely, the presence of putrefying material and the introduction of this material into the blood. He asserted that even where putrefying fluid is present in a wound it is the exception for it to be absorbed, and the rarity of such a result he traced to the presence of a continuous layer of granulative tissue, which acts as a screen between the fluid and the blood. The action of this membrane he considered to be analogous to that of other animal membranes, one of dialysis, and that its protective properties are due to its power of transmitting certain substances and rejecting others. He believes that where transmission takes place it is due to a mechanical cause, to the non-formation of healthy granulating material at some particular part of the wound, or to a solution in its continuity from mechanical or other violence. But he contended that as a matter of fact it is quite exceptional for putrefying material to be met with in wounds that are properly looked after. Time is necessary for the establishment of putrefaction, and in the case of wounds which are frequently dressed and freely treated with clean water the discharges are not allowed to remain for the requisite time. Consequently, he looked upon "free ablution with clean water, adequately used, to be amongst the simplest, safest, best, of antiseptics." In proof of his position he quotes the statistics of the last three years at St. Bartholomew's, where, out of a total of upwards of four thousand cases of severe injury and capital operations, there had been only seventeen cases of pyæmia and sixty cases of erysipelas, and he challenged Professor Lister to produce better results. If such results can be obtained by the ordinary methods of dressing, where was the need, he asked, to introduce all the elaboration of the Listerian system, which in addition to its complexity introduced elements of evil, peculiar to itself, in the shape of irritation of the raw tissues, and which could not more than any other method claim the merit of being always successful?

To an unbiased outsider there certainly appears to be a great deal in what Mr. Savory says, though, logically, Professor Lister's position is one that cannot be easily refuted. Granting that pyæmia is due to the absorption of putrefying material, and that putrefaction is produced by organic particles in the air, in water, in everything, in fact, which has not been scientifically cleansed; granting, also, that carbolic acid and certain other materials infallibly kill these germs (and all this is granted by Mr. Savory), it stands to reason that if Lister's method could be carried out without fail in every case, purulent infection would be stamped out. It must be confessed that Mr. Savory's picture of the thin granulative membrane standing between the patient and death in any case where putrefaction has set in appears a rather appalling one, and that if it be conceded that Mr. Savory's view of the mode of infection be correct, it would constitute a strong argument in favor of Professor Lister's method. But Mr. Savory's explanation of the occurrence of purulent infection is founded on a mere hypothesis, and one which I think will not be widely accepted in its purely mechanical form; and an appeal to facts — not merely to statistics, but to carefully detailed facts — must be the criterion on which our final judgment must be based. Such an appeal to facts cannot be said to have been hitherto made; for though many isolated cases have been laid before the public by Professor Lister and by his more enthusiastic followers, yet neither he himself nor any of his followers have, up to the present time, published any account of the whole of their practice, and we have consequently no means of forming a definite opinion of the ultimate gain resulting from accurate antisepticism. Unfortunately, those who have taken upon themselves to defend Lister's method against the onslaught of Mr. Savory talk as though all surgeons who had not adopted the method were showing results such as were common twenty or thirty years ago — as though wounds treated by them were habitually bathed in stinking pus, and the patient worn out by fever. But surely this is not to the point. The contention of Mr. Savory and of those who agree with him in their practice is that since the introduction of better hygienic arrangements into our hospitals the condition of surgical patients has wonderfully improved, — that this is shown to be so by their statistics. They would say that if blood poisoning and evil results of various kinds can be reduced to a minimum by careful attention to hygiene and the use of the simplest of all methods of dressing, the *raison d'être* of the antisepticians would be removed. So far, it can scarcely be said that the occurrence of blood poisoning has been reduced to a minimum, but it has been so much diminished within the last few years that it is not difficult to believe in its more or less complete disappearance within the immediate future; and as Mr. Savory has shown, the proportion of cases is already so small that it rests with the Listerians to show that they can in the aggregate produce better results.

There is one point, however, which Mr. Savory left untouched, but in which Professor Lister has now clearly the advantage. There can be no doubt that, aided by his mode of dressing, he and his disciples have ventured to perform operations which have been ordinarily looked upon as unjustifiable from their extreme risk. The successful opening of psoas and lumbar abscesses may be said to date from the period of Lister's first introduction of his method; abdominal surgery has made gigantic strides since that time, nearly all the more successful operators in this line having adopted this method; whilst Lister himself has opened joints, has wired the ends of fractured patellæ together, and performed various operations of the same kind with a result which a few years ago would have been thought impossible. At the same time it would scarcely be right at present to attach too much weight to this argument. That close attention to general cleanliness and hygiene, which has made the practice of St. Bartholomew's Hospital so much more successful of late than at any previous time, may eventually enable its surgeons to obtain the same results as Professor Lister in this respect; but just as it rests with the latter to prove that his results are in the aggregate perceptibly better than theirs, so it rests with the former to show that in refusing to adopt his method they are not putting it out of their power to perform these more delicate operations with chances of success as great as those he has obtained.

I cannot help thinking that it will ultimately be found that for general operations, where it is simply sought to produce union between two cleanly cut surfaces, it will matter little whether Lister's method be adopted or not; but that in all those cases where it is difficult to prevent the accumulation of pus, as in psoas abscesses, and in those cases where inflammation once established in one spot will tend rapidly to extend by continuity of tissue, as in serous or synovial cavities, with resulting loss of a limb or of life, Lister's method will give results far superior to those resulting from ordinary treatment. As in the case of so many other controversies, it will probably be found that there is a medium which will assert itself when the heated discussions have ceased, and that though theoretically all that Professor Lister has said of his method is true to the utmost letter, yet practically it will be found that the gain in straightforward cases will be so small as not to counterbalance the infinity of trouble which is attendant upon his mode of operation. Whilst, however, in these cases the game will not be worth the candle, in cases of the descriptions above mentioned, it will become an imperative duty to perform the operations with the most rigid attention to antiseptic details.

(*To be concluded.*)

SHORT COMMUNICATIONS.

ABSENCE OF THE LOCHIAL DISCHARGE.

BY L. JACKSON BAKER, M. D., PITTSBURGH, PA.

Mr. Editor, — The two following rare and rather interesting cases have fallen under my observation: —

Case I. Early in the morning of the 26th of December, 1877, I was called to attend Mrs. C. in labor. She was a well-proportioned, healthy colored lady, thirty-two years of age. On my arrival, I found that the liquor amnii had escaped; the head was engaged in the superior strait, with vertex to the left. Labor progressed naturally, the child being born in an hour and a half after my arrival. After I had ligated and secured the cord, and was in the act of delivering the infant to the nurse, the mother remarked to me that she was wasting too much. Placing my hand over the womb and creating some irritation with it, the uterus contracted moderately well. But as the contractions were insufficient to arrest the hæmorrhage, I made gentle traction upon the cord, in order to remove the "after-birth." Failing to succeed in this way, I introduced my hand into the uterus, when I discovered that it was abnormally adherent near its circumference, which being difficult to "break up" without using more force than was justifiable, I removed the remainder of the secundines, when the uterus contracted well and the hæmorrhage ceased. Being afraid that secondary hæmorrhage might supervene if the abnormal substance was permitted to remain, I requested a consultation. In a short time Dr. Sanders arrived, and after giving the case a careful examination we concluded to "await coming events," as he was unable to remove the placenta without laceration. On leaving, we gave her a full dose of Squibb's fluid extract of ergot, and directed more to be given if flooding should occur. Visiting her in the evening, I inquired if she had "wasted much," to which she replied, "None." The uterus was firmly contracted, and she was feeling very comfortable, having slept somewhat in the interim. During my visit the next morning I repeated my question of the evening before, and received a similar answer. Notwithstanding the patient was doing well, I feared some occult uterine trouble, and therefore ordered injections, but, as is often the case, she would not use them. She made a rapid recovery, without any lochial evacuation being present; neither was there any specially fetid odor from the genital organs.

This lady had had five miscarriages, and completed the full term of gestation four times. There were plural births twice. She informs me that only once out of the nine confinements did she have the usual lochial discharge.

Case II. On the 18th of last July my partner, Dr. E. Donnelly, was called to attend Mrs. O'M., a portly Irishwoman, who was in labor. Her labor was natural in every respect, but little blood being lost. She recovered quickly from her confinement, without any discharge being present. In the doctor's absence, I saw this case once or twice, and examined particularly in reference to the lochial discharge, and found it wanting. Dr. Donnelly informs me that he has attended her in three confinements, and says that there has been an entire absence of the lochial evacuation each time.

In looking over medical literature for similar cases, I have been unable to find more than one case, which is recorded by Cazeaux. He says: "In 1855 a case of this kind came under my notice in the young wife of a medical friend. After an easy and happy labor the lochia were almost completely suppressed. She hardly lost a few spoonfuls of blood within the first twenty-four hours; after the second day there was no discharge whatever. . . . Everything went on well during the lying-in, with the exception of a very fetid odor from the genital parts during the first seven or eight days. This young lady had been delivered once before, on which occasion she had a perfectly regular lochial discharge."

Velpeau quotes a case from Buckman, which is also quoted by Cazeaux, in which hæmatemesis was substituted for the "cleansings." Van Swieten mentions that the discharge may last but a few hours, while Cazeaux gives Millat as authority for the statement that the "discharge never appears in some women."

In Case I., I personally examined the napkin on several occasions, and always found it clean. In neither of the cases was there either diarrhœa, vomiting, or profuse sweating substituted for the lochia. One remarkable phenomenon in Dr. Donnelly's case was the scanty secretion of milk, which lasted but a few days, artificial nourishment being necessary to support the child.

The question very naturally suggests itself as to what gave rise to this abnormality in these two women. Was it due to the firm contraction of the womb, which so diminished the lumen of its vessels that the oozing of sanguineous matter was thereby held in abeyance, or was it the result of some other cause? Without desiring to enter into the discussion of the various causes which might have produced this condition, we will state that in our opinion it was due to the firm and continued contraction of the uterus. We base our opinion upon the fact that in all cases, *cæteris paribus*, where there is firm contraction without relaxation the lochial discharge is of short duration; whereas, on the other hand, where we have the so-called "humoral engorgement" of Leroux we have the "cleansings" prolonged often for several weeks.

WOMEN AT ZURICH.

Mr. Editor, — Those of your readers who have been looking with much interest for an authoritative statement from Zurich, hoping that it would prove, as it does, confirmatory of those published by Dr. Bowditch and others, must have felt strangely surprised at your editorial comments upon Professor Rose's recent letter.

The *Koelnische Zeitung* turns out to have been mistaken; the experiment has not been "abandoned as a failure," but, instead, we learn that after twelve years, with its varied and remarkable experiences, the women are working earnestly and industriously, that their presence no longer causes excitement, that their graduation theses are excellent; in short, though there is but little except a reputation for liberality to be gained and adverse prejudices still to be met, that the "experiment" is thought worthy, under very reasonable and proper precautions, to be continued. Yet you say: "One would hardly ask for more satisfactory proof of the impropriety of such experiments than the experience of this school." Searching for the details of this proof, we find nothing but the unsupported *petitio principii* that the women study at Zurich, not to meet a professional want, but as representatives of some ephemeral sect. "As six years ago it was the nihilists, so at the present time the 'advanced thinkers' have their delegation; at still another period it was the 'German noblemen.'" If the fact of receiving, in considerable and increasing numbers, lucrative employment and responsible positions, both public and private, is an indication of being wanted, — and I cannot imagine what other kind of proof is possible, — then such a statement, so far as American women are concerned, is, surely, an anachronism.

You say that if Harvard should open the doors of its medical college to women a number of the existing smaller colleges would be obliged to close theirs. It is certainly to be hoped that this would be the case. Has Harvard ever hesitated before to enlarge the sphere of its usefulness for fear of cutting out smaller and less efficient institutions, or has any one ever wished it to do so? With regard to the New York college, I think your statement is, though technically correct, really erroneous. I was recently told by a prominent teacher of that school that they should consider this step on the part of Harvard as the key to increased usefulness on their part, inasmuch as they have long desired to devote themselves entirely to the clinical teaching of advanced students, for which they claim to have excellent facilities. "Let the ladies stick to their own schools," by all means, if they can find no better, but not otherwise, and let us not fall into the fallacy of maintaining that the standard insisted on by Harvard, with so much labor, is applicable to men alone, the second best being good enough for the women. The community have liberally supported Harvard in upholding certain important educational principles, and wish to see their application made as universal as possible. It is not desired that innovations should be made through which the success of the medical school might be endangered, but only that the university should coöperate cordially in seeking some plan, not open to this objection, for securing the same high standard of medical education for women physicians as has been secured for men.

The favorable experience of Zurich permits the hope that such a scheme will eventually be found. Persistent opposition to all schemes would imply, not merely a wise and laudable conservatism, but an unwillingness to admit that women have actually gained a definite position in the medical community, and that it is therefore as important, though less feasible, to make first-rate practitioners of them as of their male colleagues.

Yours very truly, James J. Putnam.

[Our "persistent opposition" is not to the practice of medicine by women, but to the coeducation of the sexes in medicine, which we do not believe can be accomplished without disagreeable moral complications. We should therefore be sorry to see Harvard repeat the experience of Zurich. Our allusion to the New York school was to show that the demand for a good education for women was already supplied. The statement of the probable effect the admission of women to Harvard would have upon that school we received from one of its trustees. — ED.]

REPORTED MORTALITY FOR THE WEEK ENDING OCTOBER 4, 1879.

Cities.	Population estimated for July, 1879.	Reported Deaths in each.	Deaths under Five Years.	Percentage of total Deaths from				
				The Principal "Zymotic" Diseases.	Diarrhœal Diseases.	Lung Diseases.	Diphtheria and Croup.	Typhoid Fever
New York	1,085,000	498	—	23.69	11.65	8.41	2.61	1.41
Philadelphia	901,380	232	—	13.79	5.17	5.60	2.15	2.15
Brooklyn	564,400	238	105	21.85	8.40	10.50	8.82	.84
Chicago	—	174	—	37.93	4.02	4.02	18.33	8.04
St. Louis	—	112	41	26.79	8.93	1.79	1.79	6.25
Baltimore	393,796	129	57	32.56	5.43	3.10	10.85	3.87
Boston	369,000	160	82	32.50	14.38	21.25	9.38	2.50
Cincinnati	280,000	93	41	23.66	8.60	3.23	4.30	3.23
New Orleans	210,000	85	33	17.65	7.06	7.06	3.53	—
District of Columbia	170,000	73	32	34.25	15.07	8.22	2.74	4.11
Cleveland	160,000	57	20	17.54	5.26	8.77	5.26	3.51
Pittsburgh	—	55	24	34.55	3.64	7.27	23.64	3.64
Buffalo	—	—	—	—	—	—	—	—
Milwaukee	127,000	46	22	23.91	4.35	8.69	15.22	2.18
Providence	101,500	35	—	34.29	—	2.86	11.43	—
New Haven	60,000	17	3	17.65	5.88	5.88	—	—
Charleston	57,000	38	18	21.05	5.26	2.63	10.53	—
Nashville	27,000	12	4	33.33	16.67	—	—	8.33
Lowell	53,300	16	—	31.25	18.75	—	6.25	6.25
Worcester	52,500	20	6	20.00	5.00	5.00	10.00	5.00
Cambridge	50,000	18	7	27.78	22.22	—	5.55	—
Fall River	48,500	18	19	16.67	—	—	—	5.56
Lawrence	38,200	12	3	16.67	8.33	8.33	8.33	—
Lynn	34,000	8	2	50.00	—	—	37.50	12.50
Springfield	31,500	10	2	40.00	—	—	30.00	—
New Bedford	27,000	24	—	25.00	12.50	12.50	8.33	—
Salem	26,400	11	2	18.18	9.09	—	9.09	—
Somerville	23,350	—	—	—	—	—	—	—
Chelsea	20,800	5	3	20.00	20.00	30.00	—	—
Taunton	20,200	5	3	20.00	20.00	—	—	—
Holyoke	18,200	8	—	50.00	12.50	25.00	12.50	12.50
Gloucester	17,100	6	—	—	—	—	—	—
Newton	17,100	5	—	40.00	20.00	20.00	20.00	—
Haverhill	15,300	7	1	14.29	—	14.29	14.29	—
Newburyport	13,500	1	—	—	—	—	—	—
Pittsfield	12,650	—	—	—	—	—	—	—
Fitchburg	12,500	6	1	16.67	—	—	—	16.67
Milford	9,800	3	1	33.33	—	—	—	—

Two thousand two hundred and thirty-seven deaths were reported: principal "zymotic" diseases (small-pox, measles, diphtheria and croup, diarrhœal diseases, whooping-cough, erysipelas, and fevers) 557, consumption 341, diarrhœal diseases 191, lung diseases 169, diphtheria and croup 159, typhoid fever 62, scarlet fever 54, malarial fevers 51, whooping-cough 32, cerebro-spinal meningitis 10, measles four, erysipelas four, pleurisy three, trismus nascentium three, small-pox none. From *scarlet fever*, Baltimore nine, Chicago eight, Providence seven, New York and Boston six, Philadelphia five, Brooklyn, Cincinnati, Cleveland, and Fall River two, St. Louis, District of Columbia, Pittsburgh, New Bedford, and Holyoke one. From *malarial fevers*, New York 16, New Orleans six, St. Louis and District of Columbia five, Baltimore four, Brooklyn and Chicago three, Cincinnati and Charleston two, Milwaukee, New Haven, Nashville, Springfield, and Milford one. From *whooping-cough*, New York 12, Brooklyn and St. Louis four, Philadelphia and Boston three, Cincinnati and District of Columbia two, Pittsburgh and New Haven one. From *measles*, New York four. From *erysipelas*, New York, Philadelphia, Baltimore, and Providence one each. The mortality from lung diseases, consumption, typhoid fever, diphtheria and croup, and malarial fevers is considerably greater than for the previous week; from scarlet fever, measles, and diarrhœal diseases less. In 19 cities and towns of Massachusetts, with an estimated population of 865,900, diarrhœal diseases continued to decline, with an increase in diphtheria and scarlet fever. In Norfolk, during September, diarrhœal diseases and malarial fevers prevailed.

In Brooklyn the mean temperature was 67.5° F.; humidity 74; no rainfall. In Baltimore, mean temperature 67.8° F. The meteorological record for the week in Boston was as follows: —

Date.	Barometer.	Thermometer.			Relative Humidity.				Direction of Wind.			Velocity of Wind.			State of Weather.[1]			Rainfall.	
	Mean.	Mean.	Maximum.	Minimum.	7 A. M.	2 P. M.	9 P. M.	Mean.	7 A. M.	2 P. M.	9 P. M.	7 A. M.	2 P. M.	9 P. M.	7 A. M.	2 P. M.	9 P. M.	Duration.	Amount in Inches.
Sept. 28	30.341	56	68	44	78	54	81	71	0	S	S	0	9	6	H	F	F	—	—
" 29	30.268	64	75	54	82	50	83	72	S	SW	SW	8	11	8	F	H	C	—	—
" 30	30.179	70	83	56	88	46	65	66	SW	W	SW	12	13	10	F	F	F	—	—
Oct. 1	30.115	74	86	60	63	42	72	59	W	W	NW	14	12	4	F	C	F	—	—
" 2	30.228	62	72	59	89	69	65	74	NW	SE	S	7	8	8	C	C	C	—	—
" 3	29.902	72	83	57	88	55	72	72	SW	W	W	14	15	17		F	C	—	—
" 4	30.100	62	70	52	80	27	52	53	W	NW	SW	8	11	5	C	C	C	—	—
Week.	30.162	63	75	55				67	SW			1543 miles.						.66	—

[1] O., cloudy; C., clear; F., fair; G., fog; H., hazy; S., smoky; R., rain; T., threatening.

The deaths from yellow fever in Memphis for the week ending October 11th were 22, cases 74.

For the week ending September 20th, in the 20 English cities and towns, with an estimated population of 7,383,999, the death-rate was 19.4 against 18.7 of the previous week. Two thousand seven hundred and fifty-one deaths were reported: diarrhœa 226, lung diseases 177, scarlet fever 118, whooping-cough 63, measles 54, fever 37, diphtheria 21, small-pox (London) five. The death-rates ranged from 11.5 in Portsmouth to 26.5 in Liverpool; Brighton 14.8; Bristol 16.7; Birmingham 16.5; Manchester 19.9; Leeds 19.6. In Edinburgh 14, Glasgow 17, Dublin 24 (five deaths from small-pox). In 20 Swiss cities and towns, diarrhœa of young children continued very fatal, typhoid fever increasing. Geneva 19.4; Zurich 26.0; Basle 39.3.

OFFICIAL LIST OF CHANGES OF STATIONS AND DUTIES OF OFFICERS OF THE MEDICAL DEPARTMENT U. S. ARMY, FROM OCTOBER 4, 1879, TO OCTOBER 10, 1879.

Sutherland, Charles, colonel and surgeon. To report in person to the commanding general Military Division of the Pacific for duty as medical director of that division. S. O. 229, A. G. O., October 4, 1879.

Clements, B. A., major and surgeon. Granted leave of absence for four months. S. O. 228, A. G. O., October 2, 1879.

Brown, H. E., captain and assistant surgeon. Granted leave of absence for one month, with permission to leave the department and apply for one month's extension. S. O. 205, Department of Texas, September 29, 1879.

Munn, C. E., captain and assistant surgeon. To report in person to the commanding general Department of the Missouri for assignment to duty. S. O. 232, A. G. O., October 9, 1879.

Finley, J. A., first lieutenant and assistant surgeon. Granted leave of absence for four months. S. O. 230, A. G. O., October 6, 1879.

Appel, A. H., first lieutenant and assistant surgeon. To repair to Fort Benton, M. T., and to report to the post commander for duty as post surgeon. S. O. 106, Department of Dakota, September 30, 1879.

DR. C. B. SMITH, OF GRANBY.

At a late meeting of the Hampshire District Medical Society the following resolutions were adopted: —

Whereas, Our president, Dr. C. B. Smith, of Granby, has met a death of violence as appalling as it was mysterious,

Resolved, That as a member of our society he was one of the ablest and most useful, as our president he was most highly esteemed, as a practitioner of medicine he possessed the confidence of his patrons and the respect of the medical profession, and as a man he was noted for his energy, honor, and rectitude of character.

Resolved, That the sympathy of this society is hereby extended to his bereaved family.

Resolved, That a copy of these resolutions be transmitted to his widow, also to the Boston Medical and Surgical Journal, and to the *Hampshire Gazette*.

C. M. Barton, *Secretary*.

DEATH OF A NOTED DIVINE.

Died, at the family residence, Hopkinsville, Ky., September 30, 1879, in his seventy-ninth year, the Rev. Gideon B. Perry, D. D., LL. D., late rector of Grace Episcopal Church in that city, formerly rector of Trinity Church, Natchez, Miss., first rector of St. Paul's, Cleveland, Ohio, for some time at Grace Church there, and founder of St. James's Parish, Cleveland, also. Among other degrees, Dr. Perry received his M. D. of Jefferson College, Philadelphia, Pa., and practiced surgery and medicine at an early day, both in the East and West. One of his brothers was Dr. George Hazard Perry, of Hopkinton, R. I.

Books and Pamphlets Received. — General Principles of Hospital Construction. By Francis H. Brown, M. D.

Report of the Special Committee on Medical Education before the Illinois State Medical Society, E. Ingalls, M. D., Chairman. Chicago. 1879.

Buildings for Insane Criminals. By Walter Channing, M. D. Boston. 1879.

Physiological Antagonism the Therapeutical Law of Cure. By Electus B. Ward, M. D. (Read before the Detroit Academy of Medicine.) 1879.

The History of Massage. By Douglas Graham, M. D. New York: William Wood & Co.

Transactions of the State Medical Society of Kansas at its Thirteenth Annual Session, held in Atchison, Kansas.

The Dover (N. H.) Physician. (Read before the New Hampshire Medical Society.) By John Randolph Ham, M. D. Concord. 1879.

Buildings for Insane Criminals. By Walter Channing, M. D. (Read at the Conference of Charities in Chicago.) 1879.

Proceedings of the Alumni Association of Rush Medical College. Chicago. 1879.

Transactions of the Southern Illinois Medical Association for the year 1879. Vol. I.

Atlas of Histology. By E. Klein, M. D., F. R. S., and E. Noble Smith, L. R. C. P., M. R. C. S. Part VII. Philadelphia: J. B. Lippincott & Co. London: Smith, Elder & Co. 1879.

Annual Report of the Board of Health of the City of Pittsburgh for the Year 1878.

Observations on Contractions of the Fingers (Dupuytren's Contraction), and its Successful Treatment by Subcutaneous Division of the Palmar Fascia and Immediate Extension. Also on The Obliteration of Depressed Cicatrices. By William Adams, F. R. C. S. London. 1879.

Reports to the St. Louis Medical Society on Yellow Fever. By W. Hutson Lord, A. M., M. D. St. Louis: Rumbold & Co. 1879.

Transactions of the American Homœopathic Ophthalmological and Otological Society. Third Annual Meeting. 1879.

Quarterly Report of Medical Officers, United States Army. Washington: Surgeon-General's Office. October, 1879.

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A CONTRIBUTION TO THE STUDY OF THE ÆTIOLOGY OF SKIN DISEASES.[1]

BY JAMES C. WHITE, M. D.,
Professor of Dermatology in Harvard University.

It may seem needless to offer another contribution to this much-discussed question, but it is so enveloped in superstition, in popular errors descended from past professional beliefs, and in the crude theories of physicians, even, of the present day that it must continue to invite the active consideration of dermatologists. Unfortunately the opinions expressed by our own class in their writings and teachings upon this subject show a wider difference to-day than upon any other point in dermatology. Every national school has its peculiar belief, every master his individual doctrine, every author his own views, which are promulgated with as much positiveness as if such discrepancies of opinion were unheard of. If one could approach the study of dermatology for the first time after mature acquaintance with the literature and science of all other departments of medicine, he would experience unbounded surprise at a peculiarity which surrounds this question of ætiology both in its history and present aspect, that is, the tendency to refer the occurrence of skin diseases to disorders of all other parts of the economy. It is as if it had been the design of all specially concerned to hold and represent the skin as guiltless of self-disturbance, functional or structural, as the battle-ground on which foreign systems and remote organs elect to work off their ill humors, or as a passive mirror to reflect all the morbid changes going on beneath its surface. No such exemption from independent capability of disease, no such attributes of purely vicarious disturbance, are to be found in doctrines held concerning any other department of regional or general medicine. The reasons for this unique peculiarity in dermatology are to be sought in the superstitions which have from remote time surrounded this the oldest field of medical observation, and which have clung to it in large measure even to our day. The popular and professional names in use in our own and other languages to designate the visible structural changes in the cutaneous tissues in a state of disease are the simple expressions of these primitive beliefs. The peccant humors of a past orthodox pathology still flow unchanged to the popular mind in their well-worn former channels, and announce themselves at will upon the outer surface of the body in tangible forms. The bad foreign elements within us, in our fluids, in our organs, of introduced and inherited origin, seethe up at times, and bursting through the tegumentary crust which has concealed them appear as eruptions upon the skin, marked by the appropriate accompaniments of flaming heat and fluid corruption. These terms, humors, eruptions, breaking-out, efflorescence, which had their unequivocal origin in the medical profession, and yet retain a quasi-scientific position in our nomenclature, have still a positive and literal meaning with the vast majority of mankind, even among the most intelligent classes and races; and I am sorry to add that I fear that physicians are still in some measure responsible for this state of popular belief, and even now sympathize with it. Not a year goes by that the specialist is not told many times by patients, otherwise well educated, that their family physician has advised them to do nothing for this or that skin disease, lest interference with its course should be injurious to them. The innumerable times that we must remove the spontaneous fears of all classes of society that we "drive the disease in" by our remedies, that there is danger of its "striking in," I need not allude to; they are one of the great obstacles to successful practice in dermatology, and peculiar to it. These popular prejudices may be regarded, then, as the direct offspring of past and present views among physicians concerning the ætiology of skin diseases. They will prevail until the profession discards wholly its inherited theories regarding the causation of cutaneous disease, and considers the question by the same methods that are now applied in the study of this and similar subjects in all other branches of medicine.

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[1] Read at the meeting of the American Dermatological Association at New York, August 28, 1879.

This paper is presented as an elaboration of the opinion briefly expressed in the writer's address before the first meeting of the association: "We recognize the fact that the skin is of itself a great series of complex organs, with just the same inherent tendencies to disease and just the same right to its independent affections as the tissues of any other organ. By this we do not of course intend to deny that it is a part of and closely connected with the general condition of the body in disease, only no more so necessarily than any other of its separate parts."

In the *first* place I proclaim the inherent independence and individuality of diseases of the skin in as full measure as pertains to those of all other parts of the body. *Secondly*, I maintain that the pathological processes which constitute cutaneous disease are identical in nature with those which are observed in the tissues of all other parts of the body in similar morbid conditions. *Thirdly*, the same methods of observation and reasoning which are employed in the study of the natural history and therapeutics of disease of all other parts of the human economy are equally applicable in dermatology. These would seem at first hearing self-evident propositions, but nothing is farther from reality than their common acceptance as such by physicians. Let us consider briefly their professional standing: —

First, the autonomy of the skin, in as strict a sense as this term may be applied to any organs or systems of the body. Who is prepared to deny it this right *a priori?* Perhaps no one absolutely and in a general and theoretical sort of way. Yet it cannot be denied that a large number of physicians and dermatologists even refuse to recognize such independence in their writings and practice. Admitting, of course, the existence and individuality of certain affections of the skin caused by extraneous agencies, they dispute the independence of identical structural changes in it which occur without tangible cause, and hence refer most of its ordinary diseases to indefinite and remote agencies. Without mentioning again the popular beliefs just spoken of, which are also largely held by the medical profession, it will suffice to refer to the theories entertained on this subject by teachers in dermatology. I say theories purposely, because the doctrines maintained by them are founded almost wholly on pure assumption or inference; they do not even attempt a positive argument in support of their position in most cases. They agree in denying the inherent right of the skin to independent diseased action, and in failing to recognize that the burden of proof rests upon them to show why this is so; but beyond this common ground of negation there is no unanimity or consistency among them. We find the most striking diversity in the nature of the theories put forward in explanation of skin diseases, according to individual, sectional, and national characteristics, but no cumulative weight from common adoption, because none are based on scientific observation or experiment. Each writer seems to rest satisfied that he has established the truth of his denial of the local or unconstitutional origin of this or that affection by assigning its cause to some remote internal organ, which has responsibility enough in bearing its own burdens, or to disturbances of this or that function, or chemical changes in circulating fluids, the mere existence of which of themselves may not even be well established, or to some still more chimerical and intangible vice of the economy. Ordinarily the inventors or supporters of these theories are content with a simple assertion, as just stated, of their soundness, and only exceptionally make an attempt to back them by a presentation of evidence which can be properly tested by recognized methods of analysis.

Of the former class the ætiological doctrines of the French school of dermatology offer the most striking illustration. It may be, perhaps, unfair for any one not a Frenchman to venture to discuss the merits of the dartrous diathesis, for instance, for no one else has ever seen evidence of its existence; yet here are men who for half a century have occupied the most prominent positions as leaders in one of the greatest schools of dermatology, believing not only in the corporeal reality of such a demon as *la dartre*, but that it is the cause of most of the skin disease which affects mankind. Yet ask them to define its nature, and they give you merely a description of the symptoms common to the affections which they say it causes. It is in fact very like the evil spirits which the medicine-men of barbarous races exorcise, and its continued hold upon the mind of scientific men of that civilized people can be explained only on the supposition of a transmitted and irresistible mental quality or strain, as national doctrines in theology are perpetuated. Another illustration of this class may be found in the disposition to refer the causation of skin diseases universally prevalent to the action of certain diseased conditions of the economy, or of extraneous influences which are necessarily sectional or restricted in their occurrence. If we cross from France into England, where gout is very prevalent, we shall find that this affection is regarded by dermatologists as the most important factor in the causation of many skin diseases, and that in their writings they in no way restrict its action in this respect to their occurrence at home, but assign it a universal influence. Yet gout is a very rare condition in some other parts of the world, where these cutaneous diseases prevail as frequently and manifest themselves of the same type as in England. A similar example presents itself here at home in our own transactions: one of our number has announced the dogma that all skin diseases in all regions geographical are the result of two causes only, — the chronic of scrofula, the acute of malaria. With regard to the first of these nothing will be said in this connection, but as to the second it is known that malaria, as generally understood, is confined to sharply defined geographical districts. It is as well known that the cutaneous affections which, it is claimed, are due to its influence prevail most extensively in regions where malaria does not practically exist. How, then, shall we explain the promulgation of opinions in ætiology which seem to bear on their face such apparently self-evident confutation? How else than on the supposition that, overbalanced by observing the almost general occurrence of these endemic affections at home, they should misjudge their frequent manifestations in connection with the more common skin diseases, and, magnifying mere coincidence into essential cause, proclaim their inferences from restricted observation as facts of world-wide application.

Of the second class, those who attempt to present evidence of the soundness of their theories, it is a fair representation of its character in nearly every instance to say that the proofs offered rest here, too, almost wholly upon inference or coincidence. Take, for instance, those who would support on scientific grounds the old and ever popular theory that skin diseases are caused by disordered states of the blood. Mere assertion on this point is of course worth no more in this connection from the physician than from the people. We require proof, first, that the blood is disordered; then, that such morbid conditions of this fluid are constant in these affections, and that they never occur where this condition is not coexistent. With regard to the first, evidence would be admissible bearing upon its physical, chemical, or morphological constitution; the second demand could be conclusively answered only by the application of these tests to a very great number of cases. I am not aware that any of the dermatologists who actively support this hypothesis have any such data to present. Direct analyses of the blood have been made in connection with certain rare and peculiar forms of skin diseases, which from certain characteristics have been thought to be dependent upon disordered states of the circulating fluid; but in all cases the results obtained were unsatisfactory and negative. They offer no such direct methods of research, but in place of them resort to the examination of other fluids or secretions, and offer any abnormal condition of the latter they may find as conclusive not only of the disordered state of the blood, but as establishing the immediate relation of cause and effect between the state of blood and skin. The urine has naturally been selected as the most ready means of demonstrating such relationship, and I may be permitted to repeat here what I have elsewhere written: that there can be no question as to the intimate physiological relations between the kidneys and the skin in health, or of the occurrence of infrequent changes in the tissues of the latter when its circulation is surcharged with products which the kidneys have failed to eliminate, or of coincident disturbances in both in some constitutional affections. That the skin may thus occasionally be studied as an aid to diagnosis in renal disease, and in certain changes in the economy which announce themselves by synchronous modifications in the composition of the blood and urine, is true; but this does not warrant the inference that all variations in the urine which are found associated with skin diseases stand in any intimate relationship with them, or that they are both the common expression of some causative blood disorder. In fact, the changes in the urine of patients with skin diseases which have been observed are of a trivial character in the main, and such as occur in the most various and unimportant conditions of the economy, and can in no way be regarded as characteristic of the cutaneous affections in which they have been recorded. The results obtained from an extensive analysis of urine from the skin ward of a great general hospital would differ little, if at all, I doubt not, from those which any general ward would furnish, or such as would be obtained by no means infrequently in the examination of the urine from the same number of apparently healthy people. This is my own experience from the study of the urine in health and in disease. It is well to call to our aid so exact a science as chemistry in this study of ætiology, but all chances of error must be excluded in its application and its teachings not be misinterpreted, if conclusions are to be drawn from it affecting the question of the relations of skin diseases to the blood or general economy.

Concerning the hold which several of these theories have upon the convictions of some dermatologists we may quote the recent words of Huxley: "As none of these hypotheses is capable of even an approximation to demonstration, it is almost needless to remark that they have been severally held with tenacity and advocated with passion."

Second. The pathological processes which are found in the structural lesions and functional disturbances of the skin are in no way peculiar to the cutaneous tissues. I think that all are willing to accept this proposition who have made themselves familiar with the results of recent investigations into the pathological anatomy of the skin, or who have made independent studies in this direction. This subject has been so completely neglected by the profession generally until within late years that there has been no opportunity for the establishment of prejudice or wrong opinion on their part, at least, regarding it; and although hasty conclusions by observers in this field have not been wanting, accumulated results only add to the certainty of the unity of morbid processes in all parts of the human organism. It may be most positively stated that those who would establish an exceptional system of ætiology for cutaneous disease out of analogy with that which applies to all other parts of our frame will find no heterogene basis for its support in the teachings of pathology.

Third. The same methods of observation and induction should be employed in the study of this question in dermatology as are deemed legitimate and essential in similar investigations in general medicine. What results, then, do such methods of research yield when applied to this inquiry: In what relation does the skin stand to the other organs of the economy that its structural changes and functional disturbances are in any way dependent upon them? Let us consider briefly what we really know concerning any such connection in respect to the most important of these organs.

Brain and Nervous System. Of late years it has become the fashion among writers on dermatology to refer many affections of the skin, the causes of which are not satisfactorily understood, to disturbances of the nervous system. I say fashion purposely, because such reference is of quite recent origin, and because positive data for such conclusions have not multiplied within the same period, and are in fact most scanty and incomplete. That we have been able to trace the terminal cutaneous nerves a little farther towards the periphery, so as to recognize their distribution among the cells of the rete; that certain moderate disturbances of sensibility accompany the dermal tissue changes in a few diseases of the skin; that some forms of new growth and hypertrophy of the cutaneous tissues develop along certain nerve tracts; that the irritation of the peripheral nerves of one portion of the external surface may excite an irritation or an eruption upon distant parts of the integument by reflex action, as we say; that injuries to the trunk of a nerve may give rise to a variety of efflorescences upon that portion of the skin supplied by it; and that disease in the ganglion or neurilemma may be followed by a definite sequence of inflammatory phenomena in the structure of the overlying skin, we have learned. But this is very little upon which to found a division in classification so comprehensive as some would make the neuroses in their systems of nosology, or to warrant so frequent an appeal to the nervous system in discussing the ætiology of skin diseases. The terms trophoneurosis, faulty innervation, reflex irritation, etc., are used coupled with many affections with the most slanderous looseness, where not the slightest positive proof of such connection is offered, or scientific grounds for such inference exist. What does "faulty innervation," for instance, mean without some discoverable tissue change in the nerve structures? What satisfaction can such an expression afford to the truth-seeker in ætiology when applied to the common diseases of the skin? We know that along the nerve fibres come those messages which regulate the circulation, control the vital processes of every part of the skin; but in the same way are governed the tissues of every other part of our frame, and unless we are prepared also to attribute all corporeal pathological processes to faulty innervation with as little reason as in dermatology, let us stop our meaningless talk about it here, too. We do not visit hospitals for diseased nervous systems to study skin diseases, nor do insane asylums present any characteristic cutaneous affections where the general functions of the inmates are properly cared for. That condition of physical misery with its cutaneous manifestations called pellagra, so common in the immense pauper mad-houses of Europe, never occurs in our asylums, and can therefore have no real connection with lesions of the central nervous system. If we cannot discuss ætiology without guessing, let us do this at least with some show of reason. Neuro-pathology is still a suckling itself, and affords little support to dermatology in this regard.

Lungs. Although the lungs, like the kidneys, have one function in common with the skin, that of the removal of water from the economy, yet on this ground of connection or otherwise but a small part has been allotted them in the causation of the diseases of the latter, either directly or indirectly. Even in that most universal and destructive of all diseases, consumption, the skin undergoes but little change throughout its most protracted course, and specific disorders in connection with it do not occur. Two affections, however, it has been frequently asserted, are somewhat intimately associated with it, or the general condition to which it gives rise, namely, lichen scrofulosorum and tinea versicolor. The former, by no means of uncommon occurrence in Germany among the miserable classes so frequently subject to so-called scrofula and consumption, is rarely seen with us, although the latter is so generally prevalent in all classes. According to the tabulated statistics of thirty-two thousand cases of skin disease recorded by American dermatologists, it has been observed but seven times in this large number. Is it anything more than a condition of life-long neglect of the skin, becoming more prominent when the cutaneous tissues are devitalized by the marasmus incident to the affections with which it has been associated? Tinea versicolor, too, is believed by some dermatologists to have more than a casual relation to consumption, and by others at least to flourish best upon those whose systems are reduced by such wasting disease. With these opinions I cannot agree in any measure. I do not believe that any of the vegetable parasites of the skin require a special character of cutaneous soil, such as is imparted to it by disease of any kind, local or general. They flourish, according to my observation, upon all alike, so far at least as the health of the individual is concerned, and any theory which presupposes certain conditions of the skin or economy as essential to their development must be classed with that old belief in the itch dyscrasy. I once had the opportunity of studying the spread of tinea trichophytina in a large orphan asylum, whose inmates had for years been under the care of a dermatologist who had accepted as unquestionable the dogma of Mr. Wilson, that it was not of parasitic nature. The disease had had, therefore, no anti-parasitic treatment, and had attached itself to some forty children. It showed, however, no especial affinity for the weak ones among them in its early stages, nor failed in the most robust to develop into the deeper-seated and later forms upon the hairy parts; and its action under treatment upon the scalp was alike obstinate in both classes. Imported into family life by the adoption of these orphans, it never failed, where traced, to transplant itself upon the most healthy members of the household. The same readiness to universal transplantation is seen in the history of its introduction into a large family through the domestic animals. In the two cases reported by me in the JOURNAL February 14, 1878, every member of the family who handled the kittens became at once affected by ringworm. Examples of this impartial selection might be indefinitely multiplied. So, too, with tinea versicolor; although by no means as common, because growing under cover, or as easily communicated, as tinea trichophytina, yet it attaches itself and grows with the greatest luxuriance and for years upon the most robust and cleanly adults. It does not, however, spare the sickly, and that it is so frequently found upon the consumptive is simply because its discovery is insured by the exposure of the chest under examination. Such incidental connection shows only that the disease is much more common than is evident from the confessions or complaints of those affected by it.

The connection of asthma with eczema is often referred to in corroboration by those who possess a prominent belief in the constitutional nature of skin diseases, as if both affections were the expression of some common general vice of the economy. But this connection is rarely exhibited, like that with rheumatism, and is at most an alternation such as is often observed between other diseases which are not claimed to have any mutual relationship.

Heart. To this organ and its disorders no one has allotted any important share, to my knowledge, in the causation of skin diseases, chief engine as it is for the propulsion of a fluid impregnated, in popular and professional belief, with such intense capabilities in this direction.

Stomach. Not so innocent in this respect, however, are the organs of digestion regarded. Admitting the prompt and active impression upon the skin of certain substances called irritants when introduced into the intestinal canal of exceptional individuals, I am not prepared to accept the agency so commonly assigned, even by dermatologists, to these organs in the production of other cutaneous diseases. Arguing from these forms of erythema and urticaria resulting from gastric irritation, so called, many are disposed to assign to various articles of food an active part in the causation of some of the most common affections, even when no immediate effects are produced upon digestion or skin. Thus butter, fish, oatmeal, buckwheat, etc., are popularly believed to give rise to eruptions, and are generally forbidden on this account during the course of acne and eczema. Even dermatologists of a certain school share in this belief, and instruct their patients liable to the latter that fish is never to be eaten by them. The proper way to substantiate such opinions or prejudices would be to show either that these affections are more frequent or severe among nations which make a very large or almost exclusive use of such articles of food, or that attacks of these diseases are directly induced or aggravated in individual cases by their consumption. Such demonstration has not been made, and I believe is impossible. In my own experience, founded upon the latter test, these substances are perfectly incapable of such influence upon the skin. I believe also that too much importance is attached to positive disturbances of digestion as a factor in cutaneous ætiology. With regard to the other disease above mentioned, for instance, acne, we are told in several recent treatises and papers that the two conditions are not only well-nigh inseparable, but that the visible presence of the eruption is a necessary evidence of the existence of the indigestion, although every ordinary manifestation of the latter be wanting. Now I desire here to express my dissent, both from the facts as thus presented and such methods of reasoning from them. Acne between the ages of fourteen and twenty in both sexes is extremely common, and forms eighteen per cent. of all cases of cutaneous disease in my private practice. Indigestion, or dyspepsia, is a disorder certainly as common amongst us at all ages of life, but certainly not most so at this particular period. It is evident, then, that if it cause acne at this age chiefly and not at others, it is due to other agencies coöperative then and not at other times. We have therefore at the start to recognize another element wholly apart from the digestive disturbance. But are there in fact any legitimate grounds for thus connecting the conditions as cause and effect? Does acne occur in any large percentage of persons, even at the most favorable age for its development, affected by any forms of indigestion? Do all acne patients, on the other hand, suffer from disturbances of the digestive functions? Enter any large general hospital, or consult the extensive records of its out-patient department, and note the vast numbers of patients afflicted with one or more of the varieties of indigestion, alone or in connection with other forms of disease, and how infrequently you will find acne amongst them. Yet *a priori* there is as much reason for attributing to the former all the manifold ills with which it is associated as the acne occasionally met with, namely, that of coincidence. Tested by the second and more direct inquiry, however, what positive evidence is gained? Do patients with acne suffer from indigestion in any marked degree or frequency, and, if coexistent, is the former affection due to the latter? I do not hesitate to answer both questions in the negative. I have made a careful and special examination of every patient with this disease seen by me in private and dispensary practice during the past two years with reference to this point. I find a very small percentage of them, chiefly among the latter, affected by some form of primary indigestion, and a larger proportion exhibiting more or less a habit of constipation; yet both faults occurring no more frequently than among an equal number of persons under the same condition of life unaffected by acne, certainly not oftener than in connection with other affections of the skin or the remaining organs of the body. I find, however, by far the larger portion of them, especially in private practice, perfectly healthy persons, as sound in every way, but for the local follicular inflammation, as humanity admits of, — that is, if we are to be permitted to gauge our judgment in this respect by the ordinary means of analysis. If, however, we are to be told that such methods of investigation are out of place in this question, and that the mere presence of acne efflorescence, *a priori* and of necessity, proves the contrary, I must confess myself incapable of meeting such arguments on their own ground.

Again, if we appeal to therapeutics, what answer do we obtain? Do we find in the majority of cases where the cutaneous and intestinal disorders do coexist that the relief of the latter is followed by the disappearance of the other? I have tested this thoroughly, I think, and am sustained more strongly in my position. I do not find that the coincidence of the two affections influences the probable course of the disease of the skin under treatment. I doubt if any member of this association feels warranted in offering a more positive or favorable prognosis because the alimentary symptoms are especially marked in any individual case over those cases in which they are absent or masked to ordinary means of recognition. Do we find obstinate, inveterate cases of juvenile acne yielding to remedies addressed to faulty digestion? Are we not compelled to treat them, if indeed we are permitted, long beyond the period when they would have been dismissed, had we been consulted merely for the internal disturbance? I at least must acknowledge my inefficiency before the disease to this extent, and I never fail to treat this or any coexisting evil which may in any way obstruct its cure, even if in no way its cause. While denying, then, any important action in this respect to functional disturbances of digestion, which affect a great majority of mankind in some degree without producing such effects, and which, on the other hand, are absent in any appreciable measure throughout the clinical history of a majority of individual cases of acne, I must still confess a profound ignorance as to its ætiology.

Liver. It is somewhat remarkable, considering how prone mankind has been to regard its liver as the cause of much of its ill health, that it has had so small a share assigned it in the causation of cutaneous disease. There still lingers in the professional creed to a considerable extent the belief that it is responsible for the existence of tinea versicolor and some forms of chloasma. How such an error could have arisen it is impossible to understand, unless from poor guess-work and the ruling tendency among physicians to fall back upon the imagination rather than confess ignorance when questioned concerning the causes of disease, — a trait which has been a constant obstruction to progress in ætiology. The imagination may indeed be of vast service in science, bearing the mind involuntarily beyond the bounds of conscious action to meet great truths halfway, but only when previously trained to flight by constant exercise under the fundamental laws of true philosophy. Recently an unwarranted charge has been made against the liver in connection with xanthoma (xanthelasma, vitiligoidea), some of the English writers assigning to it an essential part in the development of this uncommon affection. This *rôle*, however, must be only a casual one, for in ten cases carefully examined by me with regard to such association there was not the slightest basis for such an opinion.

Kidneys. These organs, too, considering their important duties in the economy and their close supplementary relations with the skin, have preserved a marked exemption from accusations of contributing to the causes of its diseases. The relations of the urine to this question have already been sufficiently discussed elsewhere, as it is not claimed by those who urge their importance that they implicate the kidneys as distinct factors in any way, these organs merely eliminating for our examination the evidences of preëxisting disturbed relations between the skin and blood. That organic disease of the kidneys may exist for long periods, and be complicated by grave structural changes in several other important organs and leave the skin and its functions so free from disorder, illustrates in a striking manner what I have been insisting upon throughout this paper, — its marked independence in health and disease.

Reproductive Organs. There can be no doubt that the skin shares to some extent in the general excitement of the system dependent upon its ripening into puberty in both sexes, and sympathizes in a very slight degree with its disturbances at the climacteric age in women. The close relations of the integument to these organs in the lower animals especially is seen in the wonderful changes it exhibits during their periodic fluctuations of sexual activity. The astonishing coruscations of pigment and rapid tissue development manifested in its appendages, scales, feathers, hairs, and the like at such periods constantly excite our wonder. In the mammalia, even in the highest order below mankind, we find marked examples of similar fluctuations in the cutaneous structures during the rutting season. It is not strange, therefore, that during the rapid development of the follicular structures, the hair and odoriferous glands, in this awakening period of sexual power in our own youth, termed puberty, disorders should likewise frequently manifest themselves in the associate glands, varying in severity from simple oversecretion to destructive inflammation. From such normal relations it is fair, perhaps, to infer that unnatural and diseased excitements of the sexual system may give rise to similar disturbances in the cutaneous structures. The fact that acne most generally comes on at the beginning of puberty, and is most troublesome during the period of uncertain sexual relations between that and marriage ; that it sometimes disappears on the restoration of irregular menstruation ; that it has been observed apparently with unusual frequency in institutions devoted to celibacy and the worship of Vesta, while it is supposed to spare the inmates of those devoted to the purposes of a mercenary Venus ; that eunuchs are reported as remarkably exempt, and that it is supposed to be a symptom of onanism, has led to a quite generally entertained opinion that it is in some way connected with, if not dependent upon, the functions of generation. It is an opinion, however, which is based on data peculiarly uncertain and liable to error, because beyond the sphere of accurate scientific investigation ; and although there is undoubtedly some degree of truth in it, there are so many and so striking facts of rebutting character that it must not be received as founded upon definite and satisfactory evidence.

Thus I have endeavored to show some of the difficulties and errors which envelop the study of cutaneous ætiology: in part, prejudices born of ignorance, but of strange vitality, and transmitted with the authority of both popular and professional belief; in part, the direct result of hasty, short-sighted theorizing by those who occupy the position of teachers in our art. We shall make no real progress in this branch of dermatology until we sweep away all this rubbish of superstition, all these crude theories of schools and writers, and professing entire ignorance, if need be, build up a true ætiology by legitimate methods of truthful observation and sound reasoning.

A MEDICAL RECLAMATION FROM THE DOMAIN OF SURGERY.

BY T. H. BUCKLER, M. D.

In the able address delivered before the Gynecological Society, assembled last week in Baltimore, Dr. Thomas, president of the association, referring to the recent triumphs of and accessions to surgery, said it had even invaded the gall-bladder. In what manner and with what object has it made this raid? By cutting through the walls of the abdomen and then into the gall-bladder itself, with the object of removing therefrom biliary calculi! We must not be surprised to hear next of aspirating the fourth and lateral ventricles for drawing off serous effusions, or tapping the torcular Herophili for the purpose of depletion. Dr. Thomas selected an unfortunate example to illustrate the progress and paramount importance of surgery; for if there is any one thing that does and must forever belong exclusively to the department of practical medicine, it is the ready means physicians have at command of always being able to dissolve in the gall-bladder cholesteric gall-stones with as much certainty as if these same calculi were in a glass tumbler before them. Eight or ten years ago a much-abridged paper was published in *Ray's Journal* recommending chloroform in doses of from five to sixty drops every four or six hours, as a sure means of dissolving in the gall-bladder calculi, however large or numerous they might be. In the *American Journal of the Medical Sciences* for July, 1867, I also advised the use of succinate of iron as a solvent of gall-stones and of cholesteric fat, whether in the coats of arteries or elsewhere. This preparation contains more nascent appropriable oxygen than any other known therapeutic agent, in its decomposition and recompositions can do no harm, and is of all the ferruginous articles one of the very best for malarious cachexy, or in any other conditions where the blood globules diminish or need rehabilitation. Nitric acid contains, of course, a great deal more oxygen, which is, however, too easily taken up where it is not wanted; whereas the oxygen in succinate of iron is only appropriated when required, and if not needed is not appropriated at all. And for this reason, in all those cases of liver trouble where nitric and hydrochloric acid are usually prescribed, the succinate of iron will, it is believed, be found on trial far more efficacious. I have used the article for thirty-five years, prepared as a hydrated succinate of the peroxide of iron,[1] and constituted thus: $Fe_2H_2C_4H_4O_4+6HO$. Held in suspension by pure water, in impalpable form, it is permanent when carefully manipulated. Considering the activity of oxygen, it is easy to see what this compound can do with cholesterine and cholesteric fat, containing only one and one half per cent. of that omnivorous agent. In the Transactions of the Kentucky State Medical Society for 1877, Dr. John A. Octerlony reports a number of cases of chole-lithiasis, which were treated with complete success by the use of succinate of iron alone. In these critical and urgent cases of gall-stone, where often no time can with safety be lost, I prefer the conjoint use of terchloride of formyl and Stewart's preparation of the succinate of iron. In the last three cases treated successfully, I commenced the use of both chloroform and succinate of iron as soon as the existence of a gall-stone was beyond reasonable doubt established, giving the former in doses of ten drops every four hours, and of the latter a teaspoonful half an hour after each meal.

In two instances the patients, one a man and the other a woman, were able to take a teaspoonful of chloroform every six hours without experiencing the slightest ill effect. These large doses dissolved the calculi within the space of a single week. One of these cases was that of a Mrs. C., stewardess in the Scotia, of the Cunard line, and attended by Dr. Bryce, surgeon of the ship. Her case had been pronounced cancer by seven physicians while crossing as passengers to and from Europe. The writer, influenced by the previously expressed opinions, also believed the case to be cancer when he first saw it, at night; but a more critical examination the following morning disclosed the real state to be an enormously distended gall-bladder lapped up over the inferior margin of the liver, resting against the anterior face of its right lobe, and filled with gall-stones, which were readily felt through the attenuated walls of the abdomen. A marked prominence was apparent to the eye, and an icterous color of the entire surface, not noticed the previous evening, by candle-light, was in the day-time at once recognized. This was three days before landing at Jersey City. On reaching home Mrs. C. was ordered four six-ounce bottles of the succinate of iron, a teaspoonful of which she was directed to take half an hour after each meal. Recrossing in the Scotia, eighteen months afterwards, I passed for several days without recognition a large, red-faced Irishwoman, with a figure like a butt. She at length said, "And sure, doctor, if yev forgot me, can't ye remember the pain about me heart, and the cancer of me lever?" The emaciated, attenuated, and unrecognizable creature of a year and a half ago now appeared a mass of roseate flesh, fat, and blood rotundity that would have done credit to the doctrine of rest advocated and practiced for the cure of disease by the distinguished Dr. Philip Syng Physic, of Philadelphia. She said that on arriving at New York she got Squibb's chloroform, and took a teaspoonful of it in syrup and water every six hours for six days, at the end of which time the tumor over her liver had entirely disappeared, and could no longer be felt; and that she then commenced the iron, and took it until the four bottles were emptied. Cases of this sort are very rare. I have seen but one other of the kind, in the wife of a clergyman in this city, and on stating it to that marvel of purity, truth, and accurate knowledge, the late Professor Roby, he said that he had seen somewhere a case reported, as well as my memory serves me, a post-mortem observation, where the gall-bladder, distended with cholesterine, had been found overlapping the margin of the liver, on which it rested, but he had forgotten where the case was recorded. I have seen a number of cases of gall-stone, all of which, except one, were successfully treated with chloroform to dissolve the cholesterine existing in the gall-bladder at the time, and causing paroxysms of pain amounting to positive anguish, for the relief of which chloroform, the great anæsthetic, is also the best agent. After existing calculi have been dissolved, then, to overcome the cholesteric diathesis, and prevent the formation of other stones, the patients were all kept on teaspoonful doses, thrice daily, of the succinate of iron for a period of four or six months. The exceptional case where these agents were not used was that of Mrs. P., residing in Cecil County, Maryland, where she was attended by three physicians, all of whom declared in true *ex cathedrâ* style their opinions that the pain could not result from the passage of a gall-stone, since in the records of their combined experience there was no case in which so young a patient, aged about twenty years, had ever suffered from an affection of the sort. How much better it would be if we doctors, seeing how often we are mistaken, would always allow an ingredient of doubt to enter into the formation of our opinions! The three physicians were advised to put Mrs. P. on chloroform and succinate of iron, but the triumvirate thought differently, and sent their patient to Philadelphia to consult a doctor renowned in that day for his knowledge of the diseases of women. He sustained the opinion of the Cecil County physicians, gave her husband Bud on Diseases of the Liver to read, as a proof that biliary calculi were found only in women advanced in years, and told him it was impossible that his wife, with her youth, health, and extreme beauty, we may add, could suffer from an affection of the sort. All she required, he said, was mental diversion and amusement, and advised that she should go every night to the opera, which she did for five evenings in succession, and took after each performance a supper. The last supper was on Saturday. At two o'clock the following Sunday morning she was seized with pain in the region of the liver, with distressing nausea and vomiting, and after an illness of eight hours, died. The same morning at ten, Mr. P., curious to know the cause of death, asked for a post mortem, which resulted in the discovery of a calculus firmly wedged into the trumpet-like mouth of the gall-bladder. A small stone, from its liability to become fastened in this way, is more dangerous than when it attains considerable size. The one removed from Mrs. P. was sent to me in a letter. It was about the size and shape of a small Alpine strawberry. During nine years' attendance in the wards of the Baltimore Almshouse, where there was an average of nearly a death a day, and where all the bodies were examined, I twice removed calculi as large as a hen's egg from the gall-bladders of patients who died of other affections, and who during life had never made any complaint cf trouble about their livers. The large majority of patients cannot take by the stomach more than ten or fifteen drops of chloroform every four or six hours, in which cases it should be continued fifteen or twenty days. One patient could bear only four drops every six hours. In her case the solvent was continued for six weeks, during which period daily inhalations of chloroform were also used. The science of general medicine properly administered, and taking into account the frailties of human nature, is as certain as divinity, more so than law; and of all the certainties of medicine there is nothing more absolutely sure than that chloroform will in every instance dissolve calculi in the gall-bladder. When taken into the stomach it passes with the blood of the portal circulation, out of which bile is made, directly to the acini of the liver, and is carried with the newly-formed biliary fluid to the gall-bladder, where its solvent power is as effectual as when cholesterine is dropped into a glass containing terchloride of formyl. Sometimes cholesterine clogs the acini and lesser biliary ducts, producing jaundice, in which cases this otherwise obstinate trouble is promptly relieved by giving chloroform; and from the power terchloride of formyl has of dissolving cholesterine within the human body it is evident that it is not, before performing this office, converted, as some suppose, into a hydro-carbon. It might be given in the form of chloral or nascent chloroform, which latter is set free as soon as chloral comes in contact with the alkalies of the blood, but I have never given it in this form, preferring rather to use Duncan and Flockhart's Edinburgh or Squibb's New York chloroform. Ether and turpentine were recommended more than half a century ago as solvents of gall-stones, but their use as therapeutic agents for this purpose has disappointed me very much, and after fifty years' experience little or no evidence as to their efficacy is to be found. The cause of this it is difficult to explain, since out of the body cholesterine is hardly less soluble in ether than in chloroform. I believe it to be owing to the difference in the specific gravity of these two agents, ether being the most diffusible, and floating on water, while chloroform sinks in it.

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[1] By J. V. D. Stewart, chemist, Hanover Street, Baltimore.

It is hoped that nothing more may be heard of extracting calculi from the gall-bladder by use of a knife or otherwise. A drop of bile in the peritoneal cavity excites usually a fatal peritonitis, and unless adhesion exists, or is artificially produced between the peritonæum lining the gall-bladder and that covering the anterior abdominal walls, the operation of cutting for gall-stones must in every instance be fatal within a few days. Suppose adhesion exists; the alternative must then be a biliary fistula, and if, happily, this closed up, and ceased to discharge bile externally, what could then be done for a distended gall-bladder adhering to the walls of the abdomen, besides having lost its resiliency and power of contraction? What is to become of the pint or pint and a half of bile secreted in a day, a large portion of which would find its way to this now disabled sac, having no support and great capabilities of distention? Nature might as easily pump bile from the bottom of a well as from a reservoir placed in so dislocated and unfavorable a position. What is to become of the small, more numerous, and most dangerous calculi that have not emerged from behind the liver? Are they also to be dragged out and cut for?

We hear of two or three of these operations in Germany, one in Paris, and one the other day in Ohio. Results not given. They are called heroic, the exact meaning of which latter word, thus applied, has never been clearly defined. Does it refer to the operator or operatee? Is it meant by implication to signify that the operator is a hero because he has performed a heroic act, or that the patient is heroic in submitting himself trustingly to a painful, dangerous, or fatal operation? If it has reference to the former, there must be a great many heroes in the world; if to the latter, very few. We do not like to be disappointing to those who are fond of heroic resorts and methods, but it is evident that this operation for gall-stone, by whatever name it may be called, was initiated without due reflection or inquiry into the knowledge on the subject. If any one contemplates an operation for gall-stone, let him first try the more quiet and less obtrusive method of dissolving it as here described, and depend on it there will be no necessity for a resort to the knife. With the present knowledge of the subject, it is a blot on modern surgery that a degrading necessity should have arisen to discuss an operation which must always carry in its wake death, or at best hopeless disability. The operation for gall-stone is indefensible, and let us hope that we may hear nothing more of it.

Several mineral waters, notably Carlsbad, having a reputation for the *cure* of gall-stones are for this object utterly valueless. I saw and treated Mr. Von H. for cholesterine in his gall-bladder just after his return from a prolonged residence at and use of the waters of Carlsbad. Nothing less than a solvent can reach gall-stone, and these waters have no solvent properties of the kind required. According to my observation, chole-lithiasis is found four times in women where it occurs once in the opposite sex, so that gynæcologists have a fair field for trial of the proposed solvents before resorting to an expedient so hopelessly perilous as the knife.

RECENT PROGRESS IN SYPHILOLOGY.

BY EDWARD WIGGLESWORTH, M. D.

Nature of Syphilis; its Inoculation upon Beasts. — At a recent meeting of German naturalists and physicians at Cassel, Professor Klebs alluded[1] to a course of experiments tending to prove that the essential poison of syphilis was a fungus. Until the world is sufficiently syphilized to appreciate its danger, and to employ, in self-defense, criminals condemned to death for purposes of inoculation with syphilis, truth can hardly be attained. In the mean time Klebs has inoculated during the last three years many beasts, but arrived at definite results only in the case of apes, upon which the pathological manifestations are the same as upon man. Hunterian indurations or primary ulcerations were excised while recent. The microscope always showed, in the tissue fluids of these, more or fewer round cells and numerous slowly moving rods from two to five mm. in length. These last were planted upon gelatinous tissues, and developed in a few days into a fungous ring surrounding the piece of tissue employed, and formed of little rods at first briskly moving, then drawing themselves together into little balls, oval in form and composed of a net-work of the interwoven rods.

July 8, 1875, some of this fungus was subcutaneously injected into a healthy ape. By the middle of August circumscribed swellings upon the gums and tongue appeared and soon turned to foul sores, which as to their yellowish floors, sharply cut borders, and indurated circumfusa coincided with syphilitic ulcers. Precisely these appearances were fortuitously present at the same time in a case of hereditary syphilis in Professor Klebs's private practice. The syphilitic nature of the sores upon the ape was recognized by the celebrated syphilologist Pick, of Prague. September 1st the ape was poisoned, and showed at the autopsy and upon microscopical examination various abnormalities according with the syphilomata found in man.

December 29, 1877, a healthy ape was inoculated with portions of a freshly excised Hunterian induration. No chancre. Lymphadenitis in the neighborhood. In exactly six weeks fever, and in a few days papules on the face, head, and neck. The ape died May 17th, having grown gradually more and more feeble. The autopsy showed various syphilitic alterations of the skull and internal organs. The blood of this latter ape developed under cultivation, in a few days, fungi resembling closely those employed in the inoculation of the former one.

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[1] Allg. med. Central-Zeitung, November 16, 1878.

Klebs calls these little rods or filaments helico-monads, as belonging to monads in family, and on account of the spiral formation of the rods in mass, but will gladly accept any more rational appellation on the part of botanists. In February, 1879, Professor Klebs, in a leading article of sixty pages,[1] treats more fully of this subject, and a confirmatory paper by Professor Pick is appended. He concludes that at times, under certain circumstances, syphilitic indurations are not infectious, that is, have ceased to be so, that the different stages of growth of the fungus possess different grades of inoculability, that excised portions of syphilitic indurations become more infectious by being preserved for a few days in glass rods before being inoculated; finally, that (1) by inoculation of excised pieces of syphilitic induration taken from human beings the disease can be communicated to beasts, in whom, however, the course of the disease is, as to its manifestations, a varying one; (2) that in human syphilitic new formations there are found certain vegetable organisms of a low grade, which, when cultivated outside the body, produce well-characterized, peculiar forms, — helico-monads; (3) that inoculation of these last upon suitable beasts causes manifestations coinciding in nature with those of genuine syphilis upon human beings and with those of inoculation syphilis upon beasts. Professor Pick adds that the initial sclerosis was excised in cases (1) where it was the only symptom; (2) where the neighboring lymphatics were affected; (3) where general symptoms were present. In the first series some patients showed subsequently no general symptoms, or only after a very protracted period of incubation (agrees with observations of Professor Auspitz); in the second series general syphilis always followed; and in the third series the disease progressed normally, new induration usually, though not always, appearing at the site of excision, which rarely happened in cases belonging to the first series, and never unless general manifestations followed. Absence of tissue sclerosis at the point of excision does not necessarily exclude the possibility of subsequent general symptoms. The fungus, the animals, and the pathological specimens from them are well shown in plates, colored and plain.

Chancre of Tonsils; Rare Syphilodermata as Sequelæ. — A young man aged thirty-two years, and always healthy, presented himself[2] at Hardy's clinic, Hôpital de la Charité, for treatment. Six weeks previously he had had an intensely sore throat, with dysphagia and hawking, soon followed by a cough and swelling of the right jaw, both obstinate. At present, laryngo-tracheitis and alteration of voice. Body covered with a brownish-red eruption, partly macular, partly vesicular, and partly papular, the papules having a red areola, and resembling the eruption of variola. No itching or smarting. Small lenticular patches, flattened or crowned by little pustules, either whole or crusted, were scattered among acuminated vesicles distended by serum. On the side of the neck was a clearly defined characteristic ganglionic enlargement, while the inguinal glands were unaffected. On the prepuce were plaques muqueuses, but no initial lesion. Nothing upon the lips; but in the throat, upon the right tonsil, was a small cleft, ulcerated, with a grayish base and an areola of a lively red color, — an infecting chancre. Chancres of the throat are often due to catheterization of the Eustachian tube with unclean instruments. Forty patients were thus inoculated with syphilis by a single physician in Paris some ten years ago. Or, the mouth being brought in contact by any means with an ulceration or mucous patch, the virus may be carried to the tonsils by the saliva. In cauterizing the throat of a syphilitic patient, recently, a drop of saliva coughed into the eye of the physician, who foolishly stood in front of his patient, gave rise to chancre of the inner canthus, followed by constitutional symptoms.

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[1] Arch. f. experiment. Path. und Pharm., February, 1879.

[2] Gazette des Hôpitaux, September 10, 1878, No. 105.

Abortive Treatment of Syphilis. — Weisflog[1] considers the lymphatic system the path through the body of the syphilitic poison when once inoculated; that a certain time is required before the local infection can become general; that during this period, by the use of proper means and methods, the disease may be aborted. There is this difficulty in the way: that it is proved therapeutically that the internal administration of those remedies which act best against the general disease when developed are powerless to prevent such development. Broca incised the affected lymphatic glands, and by the injection of tincture of iodine induced inflammation, having observed that syphilis rarely followed suppuration of the glands of the groin, and thinking to imitate nature. Weisflog, while admitting the falsity of the method, still holds on to the idea, and considers that Broca waited too long, and that the spread of the poison should be prevented before it attains the various ramifications of the lymph system. He calls to mind his own statement,[2] that "a watery solution of acid nitrate of mercury subcutaneously injected occasions, without exception, abscesses upon parts already inflamed, but upon healthy parts none at all." For five years, and in thirty-two cases of undoubted indurated or mixed chancres, the writer has injected subcutaneously this solution between the genitals and the inguinal glands, in addition to the local treatment. In fourteen of these cases abscesses occurred on both sides, in six cases upon one side only. Where the lymphatics were not inflamed there was no formation of an abscess, and *never general constitutional infection*, provided only that the injection was repeated every ten to twelve days until the local source of the infection was not only healed over, but had also lost every sign of induration. Where, on account of preëxisting inflammation, abscess formation occurred, there followed also *no syphilis*. Of the writer's thirty-two cases he has ascertained the subsequent history of twenty-eight persons, all of whom, as well as their descendants, remained free from syphilis.

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[1] Virchow's Archiv, lxix. p. 143, 1877.

[2] Virchow's Archiv, lxvi. p. 311.

Mercury develops its highest powers as an antisyphilitic agent when brought into direct contact with the chancre poison in the tissues affected, that is, when the channels of this poison into the system are impregnated with mercury. The possibility of infection may even at times be removed by the local destruction of the chancre by means of mercurial preparations applied before the poison has spread beyond the induration into the neighboring lymph channels. The writer demands that this method shall receive a trial.

When to begin Constitutional Treatment for Syphilis. — Sigmund asserts[1] that the most suitable time to begin constitutional treatment is in the second period of the development of syphilis; but even then only when various systems or organs appear affected by the virus, or one of these very severely so, or the general nutrition and energy of the body have been seriously impaired. Otherwise, local remedies will suffice. Initial manifestations belonging to the first period are, according to Sigmund's experience, uninfluenced in their course by general antisyphilitic treatment, or this course is actually prolonged by the debility produced by medicines. Under local applications alone there occurred, in forty per cent. of cases thus treated, only very light secondary symptoms, observable solely by the patient; and in not a small number the secondary manifestations vanished speedily and entirely with merely local treatment. Moreover, experience shows that general medication begun at a late date is followed by more speedy and complete results than when inaugurated early in the course of the disease. As in all his writings and lectures, the author lays great stress upon the value of hygiene and diet, and the simultaneous attention to any other complicating constitutional malady.

Syphilis among Merchant Seamen. — Dr. R. A. Caldwell, surgeon Cunard royal mail steamship Russia, writes[2] that no greater boon could be conferred upon the sea-going population than the adoption of the "Contagious Diseases Acts" in Liverpool and other great sea-ports. Scarcely one sailor in ten escapes venereal disease, which is a prominent cause of "invaliding." The surgeons of the American navy support the sanitary value of the regulation of prostitution. They report that in certain sea-ports where stringent laws are enforced a two-months' stay was not followed by a single case of syphilis among the ship's company, whilst in ports where prostitution was unregulated the records were very different. Venereal dispensaries should be attached to sailors' homes, thus preventing seamen from falling victims to quacks. Compulsory medical examination of all men before signing articles is, however, the true principle. The modern sailor is not the man one reads about, and when he knows that physical soundness is an imperative condition to his obtaining a berth he will not so recklessly expose himself. Compel also the prostitute to sell her wares unadulterated, and the worst features of these diseases are practically extinguished. The voluntary plan is of little value. The "acts" have been proved of great benefit to garrison towns, and will be of even more to the frequenters of sea-ports, for the evils of prostitution are more severe in the case of sailors, often at sea for months without medical aid. As Mr. Acton says,[1] "The nation's weakness can be assisted only by the nation's strength."

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[1] Wien. med. Wochenschr., No. 10, 1879.

[2] Medical Times and Gazette, May 25, 1878.

Circumscribed Sarcocele (Gumma Testis). — The sarcocele of the French school may be a thickening of the tunica albuginea, with the formation of new fibrous tissue between the seminiferous tubules, which gradually causes the absorption of these last and takes their place. This is the sclerous sarcocele of Fournier, the interstitial orchitis of Cornil and Ranvier, the diffuse orchitis of Lancereaux, or the syphilitic albuginitis of Ricord. It is the most common manifestation of syphilis in the testicle, and causes atrophy of this organ unless arrested by treatment. The other form is the gumma proper, a plastic product accompanied by thickening of the tunica albuginea and hyperplasia of the fibrous septa. The gumma may be circumscribed and of the size of a nut, or may infiltrate the testicular tissue spreading along the septa. M. Reynier reports[2] two cases of the first variety, and refers to two others, one by West,[3] the other by Huber.[4] He makes a distinction between superficial gummata, suppurating speedily, causing ulceration, and yielding to treatment, so that the intact seminiferous substance may regain its functions, and deep gummata, generally parenchymatous, rarely suppurating, of slow progress, possibly causing fungous masses when opening exteriorly, and yielding to treatment after the testicle has been reduced to a shell and its functions destroyed. Fungoid formation does not necessarily follow suppuration.

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[1] Prostitution, second edition, pages 8 and 9.

[2] Archives générales de Médecine, April, 1879, page 385.

[3] Dublin Quarterly J. of Med. Sci., November, 1859.

[4] Deutsches Archiv f. klin. Med., 1869.

Syphilis of the Testicles in Young Children. — Henoch reports[1] seven cases of disease of the testicles accompanying infantile syphilis, these being enlarged, hard and unelastic, and frequently nodulated. The children were from three months to two and one half years of age, and the diseased condition usually improved under the use of mercury. In the case of one child, aged two and one half years, the general appearances had vanished after thirty inunctions of one gram each of mercurial ointment. The swelling of the testicles did not disappear, and the child dying three months later of measles with diarrhœa, the autopsy showed both testicles still very large and indurated. Microscopical examination proved extensive interstitial hypertrophy of the connective tissue, most strongly developed in the corpus Highmori. No gummata were found. This case, like the third case of Déspres, goes to prove that when fibroid new formation is already present as the result of inflammation no diminution of the size of the testicle need be expected to result from the use of mercury. The process in question represents an interstitial orchitis and epididymitis, and may be classified with the similar condition, occurring in cases of hereditary syphilis, in the liver and in the cortical substance of the kidneys.

Syphilis contracted in Old Age. — Contrary to the general belief, Sigmund regards[2] syphilis acquired late in life as of special mildness. He has made one hundred and eighteen observations of such cases in men of over fifty-five, and in women of over forty-five, years of age. The period of incubation is longer than in young people, three to six weeks being required for the sclerosis of the initial lesion and the corresponding adenitis. The characteristic manifestations of ulterior stages were also delayed as to their appearance to a period much later than is common in the syphilis of young life. Early secondary eruptions were usually slight and superficial, tubercular or deep exudative formations being rare. They appeared also without fever, and though often with vertigo, insomnia, and cephalalgia, never with an epileptic attack. Generally, he thinks, the hair and the nails did not seem influenced by the disease. There was no caries of the nasal bones, of the jaw, or of the laryngeal cartilages. People already enfeebled sometimes showed profound disturbances of nutrition, and three cases were of grave prognosis. In forty per cent. after adenitis and roseola no further symptom was developed. It was only where severe symptoms appeared that anti-syphilitic medication properly so called, was used. Otherwise Sigmund made hygiene the basis of his treatment of these cases. In about half the cases local applications alone were employed, in the other half mercurials internally and externally. Twenty-one patients showed general amelioration without perfect cure.[3]

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[1] Deutsche Ztch. für prakt. Med., 11, 1877. Schmidt's Jahrb., Bd. 178, No. 4.

[2] Wien. med. Wochenschr., Nos. 21, 22, 27, 31, 1878. Schmidt's Jahrb., 1879, page 139.

[3] Arch. gén. de Méd., April, 1879.

Influence of Syphilis upon the Course of Wounds. — Dudterhoff summarizes[1] the results of the experience derived from the recent wars in Europe as to the action of the syphilitic poison upon wounds received by its possessor, thus: (1.) Superficial contusions or continuous irritation of the wounds can, during the contagious period of syphilis, cause the appearance of syphilitic efflorescence at these points of irritation without, however, influencing the healing of the wound. (2.) Wounds received close to or touching the primary induration may yet heal *per primam.* (3.) Latency of syphilis is favored by the increased activity of tissue metamorphosis during the healing of severe wounds, but as cicatrization becomes complete the syphilis may appear at the point of injury or elsewhere. (4.) Old syphilis, if latent, does not interfere with union by first intention after surgical operations; if present, the poison acts unfavorably. (5.) Bone syphilis predisposes to fractures and militates against consolidation. (6.) Inveterate syphilis, with diseased bone and general exhaustion, may cause wounds to assume a definite form of gangrene yielding to specific treatment. (7.) Constitutional syphilis has no connection with pyæmia, nor is it proved to predispose to bleeding of wounds.

PROCEEDINGS OF THE OBSTETRICAL SOCIETY OF BOSTON.

C. W. SWAN, M. D., SECRETARY.

March 9, 1878. *Pad for Umbilical Hernia in Infants.* — Dr. Hosmer exhibited a pad for the umbilical hernia of the young infant, which he had devised for his own patients and had found to answer the purpose. It consists of a button made of any required size by winding thread in all directions over a lock of cotton-wool. This button is so soft that it can produce no irritation, so light that it cannot be displaced by its own weight, yet sufficiently firm to furnish all the pressure and support that are necessary. It is to be applied as follows: With the infant lying upon the back, see that the hernia is reduced, and then place the button in the umbilical depression, and lay over it a bit of thin muslin three inches square, the centre of which shall be directly over the hernia. With the tip of the finger, outside the muslin, press gently upon the pad which has been already placed, and then with collodion make fast the square of muslin to the abdominal wall. This will be done more easily if a layer of collodion be first applied to the skin which is to be covered by the muslin. As the latter becomes detached here and there upon its edge, it may for a time be replaced and repaired by the use of collodion, but must eventually be removed.

May 11, 1878. *Fibrous Tumor of the Uterus healed by Electrolysis.* — Dr. Bixby read the case, and exhibited the electrodes which he had devised for the performance of electrolysis. — Dr. Lyman inquired of Dr. Bixby what he considered the chances for this tumor. — Dr. Bixby replied that our experience of treating uterine fibroids by electrolysis had been so limited that we hardly know what to expect. — Dr. Chadwick said that the dangers attendant upon the electrolytic treatment of uterine fibroids should not be overlooked. He had resorted to this method in but one case. A very fat negress had a sub-peritoneal fibroid as large as a small cocoa-nut in close apposition to the abdominal wall, which was the cause of great pain and exhausting hæmorrhages. Every attempt to relieve the symptoms or to remove the tumor per vaginam having failed, he had inserted two small electrodes into the tumor through the abdominal walls, through which an electrolytic current was passed for ten minutes from a battery under the supervision of Dr. D. F. Lincoln. Three hours after, acute peritonitis of alarming nature set in, and persisted for many days. The patient ultimately recovered. It was fair to state that a subsequent examination of the needles had suggested that perhaps they were not protected so near to the points as to make it certain that the electrolysis had not affected tissues external to the tumor. The treatment produced no appreciable effect upon the tumor or the symptoms. From what Dr. Chadwick had read of the few favorable, many negative, and occasional harmful effects produced by other practitioners with this method of treatment, he was far from satisfied that the electrolytic current had anything to do with the results obtained. All who had had occasion to treat many fibroid tumors, had probably met with cases in which the tumors had disappeared after one or another method of treatment, apparently inadequate to attain this end. In illustration of this point he could adduce a case which he had seen that week. A woman had been under his supervision for two years, whose tumor had ultimately taken on so rapid growth as to rise from midway between the navel and pubes to the navel in the course of three months. He had consequently dilated the cervix four months ago to see if the growth could be reached, but without success. A few days since he had been surprised to learn that the hæmorrhages had not recurred, and on examination to find that the tumor was only one half its former size. The change could only be attributed to the dilatation of the cervix with a sponge tent. In another case, Dr. Chadwick had seen marked diminution in the volume of a fibroid from dilatation of the cervix and incision of the capsule without the discharge of any pieces of the growth. A few months ago he had seen a woman, in consultation with Dr. E. M. Buckingham, who had an interstitial fibroid completely filling the pelvis, in which he had recommended the use of ergot. The administration of fifteen drops of the fluid extract three times a day had been followed by the discharge of many shreds of tissue and several large pieces of the tumor. The mass finally all came away. He had been told by Dr. Kimball that the latter had repeatedly seen growths disappear after the insertion of a trocar in the expectation of evacuating fluid. In view of all these facts, it seemed evident that under certain unknown conditions fibroids would undergo retrograde changes in consequence of various comparatively insignificant procedures, which might be supposed to interfere with their structural integrity or disturb their nutrition. This being admitted, it was not unlikely that the occasional absorption of these tumors, after electrolysis, was in reality due to the insertion of the needles alone, and that the battery exerted no influence whatsoever. Electrolysis seemed to Dr. Chadwick to be the *ignis fatuus* of the present age, which was luring on many rash investigators in the vain hope that by it many forms of tumor, and even cancers, might be eradicated without the resort to dangerous surgical procedures. Its utter failure to effect the cure of ovarian tumors, as recently claimed with a great flourish of trumpets by Dr. Semeleder, and of cancers by Dr. Neftel, is sufficiently evident. With reference to the so-called electrolytic treatment of fibroids by Dr. Cutter, it should be known that his battery is universally admitted by electro-therapeutists to be so constructed as to produce no appreciable electrolytic action. So that if any electric current is transmitted by him, it is certainly not electrolytic, but more probably caustic. In corroboration of these statements appeal was made to Dr. Webber, who was present. Dr. Chadwick did not wish to be understood as throwing the least doubt upon the result recorded by Dr. Bixby, but as merely seeking to recognize the true factors. — DR. WEBBER stated that he was present at one of Dr. Cutter's operations with his one-cell battery, and immediately afterward tested the instrument with a galvanometer. There was no action on the galvanometer through water, even when the needles were so near together as almost to touch, but as soon as the needles touched each other under water the galvanometer instantly acted, — showing that the battery did not produce electricity of sufficient intensity to act through even a thin layer of water, though it produced enough in quantity to heat a short platinum wire.

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[1] Wien. med. Wochenschrift, December 21, 1878.

JUNE 8, 1878. *Two Cases of Labor, the Face presenting to the Pubes.* — DR. C. E. STEDMAN reported the case of a multipara, thirty years of age, whose two labors had been normal, to whom he was called in consultation. When he arrived she was cyanosed, moribund. She had had pains thirty-six hours; after considerable delay in the first stage, she finally got into hard labor, and while she was taking ether had seemed asphyxiated. The forceps, which had been already used, were reapplied, and finally, by making traction as nearly as possible at right angles to the spine, succeeded in dislodging the head, which lay with the face to the pubes, and the delivery was accomplished. There was little hæmorrhage. The woman died shortly after delivery. From a description of the case given to him by the attending physician, Dr. Stedman was strongly reminded of the kind of uterine contraction described by Dr. Hosmer in his paper lately read before the society. The bridge of the child's nose fitted closely to the mother's os pubis. The second case was that of a short and stout primipara, aged thirty-nine. The first stage began with escape of the waters, and was tedious, lasting two or three days. Finally, the long forceps were put on, and traction was made as nearly as possible directly backwards, and a dead child delivered. The face looked towards the mother's pubes, and the brim firmly embraced the fœtal head behind its neck and across the anterior fontanelle. The mother did well. Both cases were adapted to a Tarnier's apparatus, or a forceps with perineal curve. — DR. MINOT remarked that every physician had seen cases of tedious labor in occipito-posterior presentations, in which the uterus acts at a disadvantage in consequence of the spinal column of the child lying in the hollow of the sacrum, so that pressure in the direction of its axis increases the flexion of the chin on the sternum.

The forehead being engaged beneath the pubes, not only the head, but also the shoulders, must take part in the rotation before the face can be liberated. Here accuracy of diagnosis is of great importance; if the occiput be erroneously supposed to be anterior (as had happened to him more than once) the delay is unaccountable, but if the true position be ascertained delivery can often be effected in a few minutes by means of the forceps, where nature unaided would require hours for the accomplishment of her task. The instruments should be employed simply to rotate the head without using any tractile force. He had found Davis's forceps extremely convenient for this purpose.

VETERINARY MEDICINE.

The necessity for the establishment of "a national code of veterinary sanitary police laws, with execution of the same, and one national institute for the study and development of comparative and experimental pathology, and for the education of scientifically qualified veterinarians," is well and thoroughly set forth in an excellent and timely essay recently read before the New England Agricultural Society by F. S. Billings, M. V., of Boston, who claims to be the first American graduate of the Royal Veterinary Institute of Berlin.

After a most interesting historical sketch of veterinary medicine, with profuse reference to its literature, Dr. Billings gave the history of the foundation of veterinary schools, the first being established in France in 1762 by Claude Bourgelot, who was aided by the support of the French government. Between 1762 and 1835 twenty-two other schools were founded in various European countries. They were all government schools, and hence were scientific and successful. The interest and support which they received from the several ruling powers are shown by Dr. Billings's supposition that not one of them covers its expenses. The Berlin school exceeds its income by eight thousand to ten thousand dollars yearly, the deficit being made good from the public treasury.

"These schools are so established," says Dr. Billings, "the teachers so carefully selected, and their present and future welfare so well cared for (for they are moderately paid during active life, and pensioned when the period of decay has come on) that they can give their entire energies to the proper instruction of students and to scientific research. This grand result cannot be obtained by private or unregulated schools. In proof of which you may study the history of the schools of Britain. In Britain we have directly the opposite conditions. Here we find the government strangely blind to the interests and welfare of its people. America, the child, nobly follows the ignoble example of the mother. Britain has allowed her noted and valuable herds to become repeatedly decimated by pests, without taking a single step to educate properly qualified men toward their protection. Here we find no state responsibility, no state regulation of the standard of education at the schools, thereby guaranteeing to the people properly educated practitioners. We find little above scholastic empiricism. We find no critical selection of teachers, no contribution to the support, no support of scientific research, by means of which the checking of animal pests can be hoped for."

The first and only school in the United States was established sixteen years ago in New York city by Alexander Liantard, a Frenchman. This is a private school, and lacks public appreciation.

Dr. Billings expresses mortification that no reliable statistics are to be found with reference to the devastation and extension of the contagious and infectious diseases of animals in the United States. He then mentions some of these diseases, — pleuro-pneumonia, glanders, trichiniasis, rabies, foot and mouth disease of ruminants, blackquarter. Lung plague, he says, has cost the country hundreds of millions of dollars. " Immediate slaughter and redemption by the government is our only recourse." Massachusetts makes an honorable exception to the incapacity of our state governments and Great Britain in the care given to prevent the spread of cattle diseases. But there are no authorized inspectors. " Nowhere in the broad expanse of this country is there a properly funded and regulated institution, properly supplied with critical teachers capable of educating men suitable to this necessary work, and capable themselves of carrying on those researches into the generative causes of these diseases, by which alone their ravages may be checked or their extinction hoped for."

Our agricultural fairs, which bring together the finest specimens of cattle and horses, and likewise our markets, are always liable to become sources for the spread of contagious diseases, because no inspectors protect the sound animals from association with those which are diseased, but which have an unchallenged right of entry. And not only are the healthy animals exposed to contagion, but human beings as well, for, says Virchow, " man is much more susceptible to infection from diseased animals than the latter from man."

" In Germany, the minister of agriculture acts as head of veterinary police, but is counseled by a special deputation composed of leading veterinarians and medical men, among them Professor Virchow." Dr. Billings earnestly urges the necessity of a similar provision for the United States. He would have Congress or the president appoint a commission of " *honest men* " selected from the leading stock-raisers. They should nominate three veterinarians of experience and two able lawyers, whose duty it should be to draft a code of national police laws and regulations in strict accord with the best scientific research. These laws should be accepted by Congress and ratified by state legislatures. From the three veterinarians one should be chosen as veterinary inspector-general of the United States. He should hold his position until sixty years of age, unless previously incapacitated by illness. On retirement he should receive a life annuity, two thirds of which should be continued to his widow during her life, and a proportionate amount to his children until they reached eighteen years of age. Each State should appoint its veterinary inspector-general, to be selected by open competition before the State Board of Health, the terms of office to be selected by those already named. There should also be local inspectors. States should make annual reports from quarterly returns, in connection with those of state boards of health. This plan interferes in no way with state or individual rights in the best sense. It seeks to protect the animal property of every man as if he were the government itself.

Finally, there should be a national institute for the study of comparative pathology, for researches into causes of contagious, infectious, and other animal diseases, the relation of animal diseases to human health, and the education of scientifically qualified veterinarians.

These few suggestions from Dr. Billings's essay essentially cover the ground which he has so manfully taken. They are needed, and should receive earnest heed. To-day we have no protection against the ravages of animal diseases. Such a safeguard as animal quarantine, or careful inspection of animals at markets and fairs by men thoroughly educated in a scientific school, would create benefits to the country at large whose value will suggest itself. We hope Dr. Billings's wise advice and pregnant revelations have fallen upon fallow ground.

MEDICAL NOTES.

— The next semi-annual competitive examination of candidates for the position of house-officers at the Boston City Hospital will take place at a time earlier than heretofore, probably about the middle of November. Due notice will be posted in the usual places, and also will appear in this journal.

— We are glad to state that the lyric entitled "Insomnia" in a recent number of the JOURNAL, combined with other measures, accomplished the purpose of its versatile author, who informs us that the "whistle is now dry," on the New York and New England and the Eastern railroads, greatly to the relief of the suburban sufferers.

— At the recent international congress at Amsterdam, during one of the entertainments, according to a French paper, two interesting *tableaux vivants* were produced. The first was a parody on the great picture which ornaments the lecture room of the Ecole de Médecine in Paris, — Ambrose Paré rejecting the cautery for the ligature. In the place of Paré the form of Lister appeared; the stone block supporting the thigh was replaced by an antiseptic dressing, and in place of the iron an assistant handed a steam atomizer to the surgeon. Mr. Lister, who was present, rose in response to the applause elicited. The second was a reproduction of Rembrandt's Leçon d'Anatomie, but surrounding the subject were a group of pretty young ladies listening to the demonstration of an aged anatomist in petticoats.

PROVIDENCE.

— Scarlet fever has prevailed in Providence and vicinity to an alarming extent during the fall. The September report of Dr. E. M. Snow, the city registrar, shows that out of a total mortality of one hundred and thirty-four during the month, nineteen deaths occurred from this disease, exceeding the number from any other cause except consumption. Dr. Snow regards scarlet fever as one of the "filth diseases," and remarks in his report that, as a rule, people need not look beyond their own houses and door-yards for the causes of this as well as many other forms of disease.

— At the annual meeting of the American Academy of Medicine, held in New York last month, Dr. E. M. Snow and Dr. E. T. Caswell, of this city, were elected to membership. The next annual meeting of the Academy, which will occur in September, 1880, and continue two or three days, is to be held in Providence.

— Dr. Samuel S. Drury, one of the most esteemed physicians of Bristol County, and a member of the Rhode Island Medical Society, died at his home in Bristol on the 9th inst. The deceased was a native of Bristol, and resided there during his whole life. He was noted for his sound judgment and his conscientious discharge of professional duties. He was highly respected in the community in which he lived, and warmly attached to his family. He leaves a widow and six children.

NEW YORK.

— A sad accident has cut short in its prime the career of one who was much esteemed both by the profession and the community at large, Dr. Eugene Peugnet, of Fordham. On the 10th of October, after making a professional call at East Mount Vernon, he was waiting at West Mount Vernon for a train to take him home, when another train, which he did not notice, struck him and ran over him. His feet and ankles were completely crushed, as all the cars passed over them. After the accident he behaved with remarkable coolness, giving himself a hypodermic injection of morphia, and also directions as to what should be done until the arrival of the surgeons, who amputated his legs. Death ensued early on the following morning, and the funeral services, which were very largely attended, were held at the church of St. Vincent de Paul, New York, on the 13th.

Dr. Peugnet came from a family of soldiers who served under the first Napoleon, and many years ago his father, Hyacinthe Peugnet, established a school for boys in Bank Street, New York, which became quite famous. He was born (in 1837) and studied in this country, but afterwards completed his medical education in Europe. For a number of years after his return he resided in New York city, but subsequently removed to Fordham, on the Harlem railroad, where he acquired a very large practice. He was universally beloved and respected, and his name soon became a household word throughout West Chester County. In the profession he was especially distinguished as an original investigator of therapeutical science.

— On the 13th the corner-stone of the new St. Mary's Hospital for Women, in connection with which there is to be an asylum for foundlings, was laid in Brooklyn, by Bishop Lynch, of the Roman Catholic Church, in the presence of fifteen or twenty thousand people. The buildings will be one hundred and fifty-seven feet long by two hundred and twenty-nine deep, and will thus occupy the greater part of an entire block. In their construction the aim of the architect is not so much beauty of design and elaborate ornamentation as fitness for the purposes to which they are to be devoted, and hence he has endeavored to avail himself of the best improvements in ventilation, drainage, and other requirements of modern sanitary science. The institution was originally established in 1868 in an ordinary dwelling-house.

— The Society for Improving the Condition of the Poor has just held its thirty-sixth anniversary. It has always done its work systematically, its object being not merely the temporary relief, but the real elevation of the moral and physical condition, of the poor. It originally divided the city into twenty-two districts, and afterwards subdivided these into sections, each of which is in charge of a visitor. Only such articles of food and clothing are given as are least liable to abuse, and these solely through a visitor, while no money is furnished. Among the requirements insisted upon are, that each beneficiary of the society shall refrain from intoxicating drinks, that young children shall be sent to school, and that those of a suitable age shall be apprenticed. Since its incorporation in 1848 it has been the means of setting in operation a number of excellent charities, such as the Demilt and Northwestern dispensaries, the New York Juvenile Asylum, the Children's Aid Society, the Workingmen's Home, and the Society for the Relief of the Ruptured and Crippled.

— At the last meeting of the Medico-Legal Society the following officers were elected: president, Charles S. Wood, M. D.; vice-president, Daniel S. Riddle; recording secretary, George W. Wells, M. D.; assistant recording secretary, H. S. Rockenbaugh; treasurer, William Sheady; librarian, William J. Purcell, M. D.; chemist, Charles A. Doremus, Ph. D.

— Professor Acland, of Oxford, recently addressed the students of the Union Theological Seminary, at the request of Rev. Dr. William Adams, its president, on the relations of science and religion. In the course of his remarks he alluded pleasantly to the strangeness of his position as a Church of England physician speaking in the hall of a Presbyterian seminary. He was appointed to his own chair at Oxford, he said, by Dr. Pusey, who was supposed to think physical science dangerous, and yet who had encouraged him to the utmost in his scientific pursuits. The effect of thirty-five years of the investigation of natural science upon his mind had been to make him impatient at dogmatism, whether religious or scientific, and he was more and more disposed to look on the work and conclusions of others with the largest toleration.

— On the 1st of October a school of practical histology and pathological anatomy was opened by Dr. T. E. Satterthwaite, microscopist to the St. Luke's and pathologist to the Presbyterian hospitals, and Dr. N. H. Porter, curator to the Presbyterian Hospital. In connection with this a course on the normal and pathological anatomy of the eye and ear is to be given by Dr. Abraham Mayer, pathologist to the Manhattan Eye and Ear Hospital.

SURGICAL NOTES.

PHILADELPHIA.

— It is a well-known fact that urethral instruments furnished by different makers will often vary in size in the corresponding numbers. Dr. Charles H. Thomas, of Philadelphia, has offered a simple means of bringing order out of confusion by suggesting the general use by surgeons of what he has termed an adaptable metric gauge.[1] (See cut.) It is a miniature kid-glove measurer, accurately marked in millimetres, and being made of bank-note paper, which will not stretch nor readily tear, it affords a convenient means of at once verifying and correcting the calibre of instruments, according to the French scale. In order to facilitate the introduction of the decimal system, and to furnish the profession with a means of correcting and comparing observations, this adaptable metric gauge is recommended, and has been manufactured for distribution by Messrs. J. H. Gemrig and Sons, of Philadelphia, who offer to send them to physicians on application without any charge.

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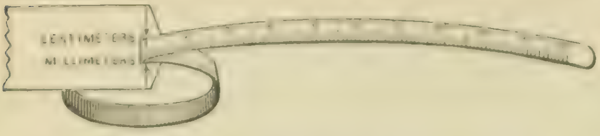
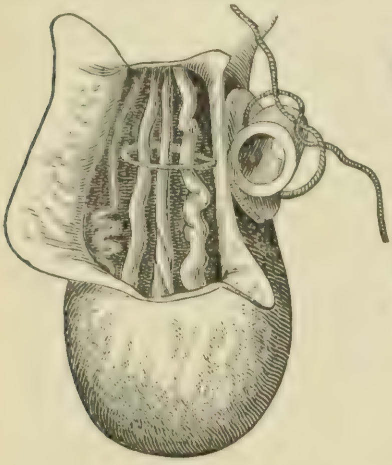
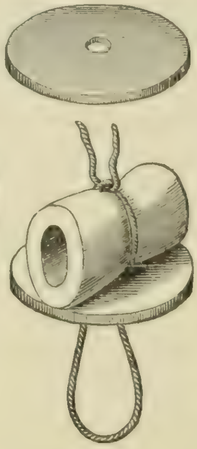
[1] A full description can be found in the Proceedings of the Philadelphia County Medical Society, published in the Philadelphia Medical Series, vol. ix. p. 501.



— Dr. R. J. Levis treats hydrocele by the injection into the sac of undiluted carbolic acid, by means of a Pravaz syringe or an ordinary hypodermic needle. Twenty to thirty minims are thrown in after the fluid has been allowed to flow away; the acid is allowed to remain permanently. It is best to introduce the needle into the sac before drawing off the contents in the ordinary way with the trocar and canula, and then to inject the acid. This operation has been performed a number of times, with satisfactory results, both at the Pennsylvania and Jefferson College hospitals; its great advantage over iodine and other injections is that it appears to be perfectly painless, owing to the action of carbolic acid as a local anæsthetic.

— In the operation for varicocele, Dr. Levis has for several years practiced a modification of the ordinary operation of subcutaneous ligation.[1] In order to secure the success of the operation, it has been found necessary to keep the ligature tight, so as quickly to cut through. This is accomplished by tying the ends of the ligature (after passing them through a button) over a piece of *rubber tubing*, as seen in the illustration. In the place of the ordinary bone button, which was adopted by the elder Professor Pancoast, Dr. Levis prefers a metallic shield made of a piece of tin, or, better still, of silver, easily obtained by boring a hole in a quarter of a dollar.





In simple fracture of the clavicle, Professor Gross discards all other dressings in favor of the silicate of soda, one application of which is generally sufficient. It is put on with the muslin roller bandage, an ordinary gauze shirt protecting the patient's skin.

— Professor Gross recently performed his one hundred and fifty-second operation for stone in the bladder by the lateral method. Dr. S. W. Gross has just performed this operation at the Jefferson College Hospital upon his fourth case, with three recoveries.

— Prof. John Ashhurst, at the Hospital of the University of Pennsylvania, a short time since, made a double amputation for railroad crush of the legs, one above the other below the knees. Esmarch's bandage was used, and hot water applied to the flaps to check oozing. The patient, a boy of about fourteen years, recovered.

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[1] The application is described in the Philadelphia Medical and Surgical Reporter, vol. xl. p. 382.

THE BRITISH MEDICAL ASSOCIATION.[1]

Mountain Air in Phthisis. — Alcohol in Fever. — Tracheotomy in Croup. — Joint Diseases. — Subcutaneous Osteotomy. — Ophthalmology.

Mr. Editor, — After the presidential and other addresses, one of which I discussed at length in my last letter, the chief interest at the recent meeting of the British Medical Association centred in the discussion, in the various sections, on subjects chosen some time beforehand, and for which many excellent papers had been prepared. Those in the section of medicine were on (1) The Value of Mountain Air in the Treatment of Phthisis, (2) The Value of Alcohol in Fever, and (3) on Tracheotomy in Croup. In the first of these discussions leading parts were taken by Dr. Henry Bennett, who has spent many years in the Riviera, and by Dr. Clifford Allbutt, of Leeds, who has recently become a champion for Davos, a small town in the Grisons, situated at an elevation of five thousand feet. The former contended that the only advantage to be gained from mountain air in phthisis was to be traced to the fact that patients in such places spend much of their time in the open air; and he argued that as there was far better weather on the Mediterranean coast than high up in the mountains, this object was much more likely to be attained in the former than in the latter position. Dr. Clifford Allbutt took quite another view of the question. Considering that phthisical lungs are in many cases nothing else than lungs in a state of ordinary ulceration, he thought that our treatment of such lungs should approach as nearly as possible to that of ulcers elsewhere. We are, however, unable to apply local applications except by inhalation, and we are unable to best fulfill the indication for complete rest. The utmost that we can do is to make the air antiseptic, and this, he thinks, can be achieved only by taking the patient to places situated at a great elevation. He quoted some observations he had made on the putrefaction of organic infusions in different places, asserting that he had ascertained that the atmosphere of the high Alps was aseptic. He consequently traced the improvement which is so often seen in phthisical patients in mountain climates, not to the cold, nor to the rarefaction of the air, but to its antiseptic quality. I think that Dr. Allbutt's observations on organic infusions are not strictly in accord with those made by Professor Tyndall under somewhat similar circumstances, but his suggestion is undoubtedly ingenious and worthy of attention.

The discussion on alcohol was chiefly of interest in emphasizing the immense change which has come over medical practice within the last few years. There was a remarkable consensus of opinion amongst those who took part in the debate, and who came from all parts of the country, and represented various aspects of the temperance question. The conclusions at which they arrived were only such as every one is familiar with at the present day, but it is highly instructive to find that the reaction against the indiscriminate use of alcohol in fever has become so general that no one should be found to uphold the old school at a large general meeting like that at Cork. The alcohol question has been attracting more than usual attention lately, for a few months ago one of the leading lay periodicals, the *Contemporary Review*, opened its pages to a discussion on the general question of the utility of alcohol, in which many of our leading physicians and surgeons took part. The essays were of very various merit, but their general tenor was such as to prove how much more guarded are the views taken on this subject by thoughtful members of the profession at the present day than they were twenty years ago. At Cork the therapeutical side of the question alone came forward; in the *Contemporary Review* the moral side was also considered; but both discussions have served to show how great is the revolution in medical opinion, — so great, indeed, that we may hope that in the future it will be impossible to allege that one of the main causes of middle-class intemperance lies in the indiscriminate recommendation of alcohol by the medical profession.

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[1] Concluded from page 565.

The consideration of the value of tracheotomy in croup could scarcely fail to become somewhat mixed up with the vexed question as to the pathology of croup, and its identity or non-identity with diphtheria. No very fresh conclusions were arrived at, the general tone of the speakers being that the operation should be performed rather earlier than is usually the case.

In the surgical section the chief topics were the diagnosis and treatment of joint diseases in their various stages, and subcutaneous osteotomy. The former subject was opened by a paper from Dr. Sayre, with whose views on joint disease your readers are doubtless familiar. He believes that so-called strumous diseases of joints can be invariably traced to some traumatic action, and that without action of this kind struma alone is powerless to produce joint disease. He also teaches that in the treatment of such cases, though rest is of the utmost importance in certain stages, yet there is a period when motion is quite as strongly indicated, and he bases this belief on the success attending the practice of "bone-setters," who frequently cure joints which have been despaired of by ordinary surgeons. Dr. Hodgen, of St. Louis, endeavored to show that the views of Professor Gross and of Dr. Sayre, the former of whom ignored the local origin, and the latter of whom gave only second rank to the constitutional cause, are not in reality so widely divergent as might at first appear. One cannot but think that Dr. Hodgen's judicial view of the case is much more likely to be the correct one than either of the extreme views advocated by the eminent surgeons whom he tries to reconcile. On the one hand, it is difficult to imagine that the joints of strumous people, which are obviously very prone to disease, shall not be more liable to become diseased from slight traumatic causes than those of healthy subjects, and consequently that many cases of strumous joint disease will have taken their origin from some accidental cause. On the other hand, it is notorious that strumous people are especially prone to low forms of inflammation in various situations, and it has never yet been contended that such inflammations are invariably traumatic. But if idiopathic inflammations may take place in one part, why not in another? If they may take place in the subcutaneous tissues or lymphatic glands, why not in joints? From its very nature this is one of the questions that are almost impossible to prove, but here as elsewhere in medicine the probabilities are very much against the exclusive action of only one class of causes in the production of a wide-spread morbid condition in parts which are certainly exposed to the action of a variety of causes.

The discussion on subcutaneous osteotomy was particularly apropos at the present time, when this operation is being performed on so large a scale for the relief of a variety of diseases which have till recently resisted almost all methods of treatment. During the last three years it has been largely used for the cure of genu valgum and of the more severe forms of rickety deformity. The subject was opened by a paper from Mr. William Adams, who was followed by Dr. MacEwen, of Glasgow, and by Mr. Parker, of the East London Children's Hospital. Mr. Parker had operated on a large number of cases without a single fatal result, only one operation being attended by suppuration, and nearly all the cases were followed by marked success. Mr. Jones, of Manchester, read notes of a dozen cases of osteotomy, in all of which recovery had taken place, with more or less success in the removal of the deformity. Several speakers, including Mr. Adams, expressed opinions adverse to operating on young children, but their objections were for the most part theoretical, and are not borne out by the results obtained by Messrs. Parker and Jones, whose cases varied from three years old to thirteen years. Mr. Parker had adopted Reeves's modification of Ogston's operation for genu valgum, that is, had aimed at dividing the lower end of the femur without entering the knee-joint. He believed this to be perfectly feasible; for though in none of his cases had he been able, fortunately for his patient, to make an examination, yet in only three or four cases had there been any effusion into the joint.

In the section of ophthalmology there were discussions on tobacco and alcoholic amblyopia, on color-blindness, and on glaucoma. The first of these was opened by Dr. Hirschberg, of Berlin, who verified Förster's statement that the main features of tobacco amaurosis are failure of both eyes alike with nearly central scotoma, and corresponding defect of color perception without any contraction of the visual field, never passing on to complete blindness, and improving or disappearing when tobacco is relinquished. Occasionally these symptoms may be due to alcohol alone, and they are in some few cases met with where neither tobacco nor alcohol have been used.

I must not omit to mention a paper read by Dr. Norris, of Birmingham, followed by a practical demonstration, in which he claimed to have discovered a third corpuscular element in the blood. Dr. Norris attracted attention some years ago by experiments with soap bubbles, showing how one bubble may be made to pass through another without producing any change in shape or solution of continuity in either, and he sought to deduce from these experiments the explanation of the passage of white blood corpuscles through the walls of blood-vessels. The new corpuscular element, according to Dr. Norris, is present in large numbers in the blood, but the corpuscles being of the same refractive index and color as the liquor sanguinis are ordinarily invisible. By a certain method of treatment, however, they can be rendered visible. He believes that they are really chyle corpuscles, and that they represent an early stage in the development of the red corpuscles. Dr. Norris has already demonstrated his method of examination of the blood before the Royal Society, and his statements will doubtless be carefully investigated by competent observers. If they should be borne out on further examination, his discovery will be one of very great interest, and will tend to clear up a point which has long baffled the inquiries of physiologists.

SHORT COMMUNICATIONS.

HYPERTROPHY OF NERVE TISSUE IN AMERICA.

MR. EDITOR, — A recent number of the JOURNAL[1] contained a communication by Dr. Nathan Allen entitled Changes in Medical Practice. In this article the author lays considerable stress upon certain "*changes of organization,*"[2] to which he ascribes the deterioration of health observable among American women. "Within fifty years," he says, "a great change has taken place in the organization of New England women. With *increased nerve tissue* there has been a loss of muscular development and physical strength." Elsewhere he speaks of "the relations which this *increase of nerve tissue* has to other organs;" and again of "the effect which this *predominance of nerve tissue* has upon domestic life and the laws of maternity."

Now, considering how a great a step towards elucidating the nature and causes of the alleged ill health of American women would be accomplished if we could accurately determine the pathology of the morbid conditions prevailing among them, these statements of Dr. Allen's are highly interesting. His communication, however, is very short, and he gives no indication of the pathological *facts* upon which his assertions are based. With a view to eliciting further information on this important subject, I should like to inquire what pathological evidence exists of an increase of nerve tissue in the women of New England of the present day as compared with their predecessors of fifty years ago, or with the women of other countries. ⁂

SURGEON-GENERAL UNITED STATES NAVY.

PHILIP S. WALES, M. D., medical inspector United States Navy, a native of Maryland, has been appointed chief of the Bureau of Medicine and Surgery of the United States Navy, with the relative rank of commodore, to succeed Chief (Surgeon) J. Winthrop Taylor, placed on the retired list. Dr. Wales is the third son of the late Philip Wales, of Baltimore, and was born in Annapolis. Having attended two courses of lectures at the Medical School, University of Maryland, Dr. Wales graduated in the spring of 1856. He went immediately before a naval examining board in session at Philadelphia, and passed a successful examination. He was commissioned an assistant surgeon in the navy April 17, 1856, and was soon ordered to duty at the Naval Academy, Annapolis. On June 8, 1873, he was promoted to be a medical inspector, and at the time of his new appointment had reached nearly the top of the list of the fifteen medical inspectors in the service. Dr. Wales is the author of several works on subjects pertaining to medicine and surgery, and is regarded in the service as a gentleman of rare attainments and solid learning. He is about forty-three or forty-five years of age, and is of fine presence. — *Maryland Medical Journal.*

BOSTON DISPENSARY.

THE report of this institution for the year ending September 30, 1879, is as follows: The number of new patients treated at the central office is 19,733, classified as follows: —

Medical: men 3763, women 6461, children 3729. Surgical: men 1718, women 877, children 534. Dental: men 391, women 546, children 701. Skin: men 356, women 354, children 245. Diseases of the nervous system: men 23, women 30, children 5.

The number of patients treated in the districts is 14,591, classified as follows: men 2209, women 5592, children 7150. Total number of cases treated at the central office and in the districts, 34,684. Number of patients since October, 1796, 730,116. Number of patients since July, 1856, 611,314. Average daily attendance at the central office during the year, 130.

Surgeons. Thomas Waterman, M. D., Charles E. Inches, M. D., Walter Ela, M. D., Edward H. Bradford, M. D. *Physicians.* Robert Disbrow, M. D., Reginald H. Fitz, M. D.,

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[1] The JOURNAL, October 2, 1879, page 472.

[2] The italics are added.

Josiah L. Hale, M. D., William H. Baker, M. D., Joseph P. Oliver, M. D., William C. Holyoke, M. D., George B. Shattuck, M. D., Robert M. Lawrence, M. D., John Dixwell, M. D., James B. Ayer, M. D., John F. Bush, M. D., Francis H. Davenport, M. D., Abner Post, M. D., Thomas M. Rotch, M. D., Maurice H. Richardson, M. D., Arthur T. Cabot, M. D.

Department for diseases of the nervous system: *Physicians.* David F. Lincoln, M. D., Frederick W. Vogel, M. D. Department for diseases of the skin: *Physician.* Francis B. Greenough, M. D. *Dentist.* Albert J. Colgan.

District Physicians. No. 1, George W. Copeland, M. D. No. 2, Claudius M. Jones, M. D. No. 3, Edward L. Parks, M. D. No. 4. Charles M. Green, M. D. No. 5, Charles P. Bancroft, M. D. No. 6, Henry C. Haven, M. D. No. 7, William F. Whitney, M. D. No. 8, Francis H. Williams, M. D. No. 9, Henry W. Broughton, M. D. *Apothecary.* Frank H. Clark.

WILLIAM H. H. HASTINGS, M. D., *Superintendent.*

THE ST. LOUIS COLLEGE OF PHYSICIANS AND SURGEONS.

DR. L. BAUER, dean, and Dr. W. B. Hazard, secretary of the faculty, of this school, write to inform us that the fee alluded to in No. 15 is thirty dollars per annum. They take the occasion to say that the course of study extends over three years of nine months each, the arrangement being similar to that employed at Harvard. There is also a preliminary examination.

REPORTED MORTALITY FOR THE WEEK ENDING OCTOBER 11, 1879.

Cities.	Population estimated for July, 1879.	Reported Deaths in each.	Deaths under Five Years.	Percentage of total Deaths from				
				The Principal "Zymotic" Diseases.	Diphtheria and Croup.	Lung Diseases.	Diarrhœal Diseases.	Typhoid Fever.
New York	1,085,000	493	227	23.73	5.48	13.80	10.75	1.42
Philadelphia	901,380	226	58	11.06	3.98	3.10	—	4.42
Brooklyn	564,400	207	90	26.57	13.04	10.63	8.70	.48
Chicago	—	190	—	33.70	16.32	6.32	2.11	5.26
St. Louis	—	102	40	28.43	9.80	2.94	10.78	—
Baltimore	393,796	137	66	26.27	7.30	2.92	4.38	5.84
Boston	360,000	126	60	29.37	3.97	25.40	16.67	2.38
Cincinnati	280,000	97	40	20.62	7.22	7.22	5.15	—
New Orleans	210,000	87	—	18.39	1.15	3.45	5.75	2.29
District of Columbia	170,000	51	17	31.37	9.80	1.96	9.80	7.84
Cleveland	160,000	57	35	33.33	21.05	3.51	3.51	1.76
Pittsburgh	—	53	—	39.62	18.87	7.54	3.77	5.66
Buffalo	—	—	—	—	—	—	—	—
Milwaukee	127,000	37	15	27.03	27.03	13.51	—	—
Providence	101,500	29	12	37.93	6.89	6.89	—	3.45
New Haven	60,000	23	4	26.09	—	—	8.69	8.69
Charleston	57,000	21	14	9.52	4.76	4.76	—	4.76
Nashville	27,000	14	6	21.43	—	7.14	21.43	—
Lowell	53,300	17	—	35.29	11.76	5.88	5.88	11.76
Worcester	52,500	12	5	33.33	—	16.67	8.33	25.00
Cambridge	50,000	12	5	50.00	25.00	—	25.00	—
Fall River	48,500	16	8	18.75	—	—	—	—
Lawrence	38,200	13	7	30.77	23.08	7.69	—	—
Lynn	34,000	11	3	27.27	9.09	—	—	—
Springfield	31,500	14	—	14.29	14.29	7.14	—	—
New Bedford	27,000	16	—	43.75	18.75	6.25	18.75	—
Salem	26,400	11	1	18.18	9.09	—	9.09	—
Somerville	23,350	6	—	33.33	33.33	—	—	—
Chelsea	20,800	4	1	25.00	—	—	—	—
Taunton	20,200	4	1	50.00	25.00	—	—	—
Holyoke	18,200	11	—	45.45	9.09	9.09	18.18	—
Gloucester	17,100	8	6	25.00	12.50	—	—	—
Newton	17,100	7	4	—	—	14.29	—	—
Haverhill	15,300	1	—	—	—	—	—	—
Newburyport	13,500	4	1	—	—	—	—	—
Pittsfield	12,650	1	—	100.00	—	—	—	100.00
Fitchburg	12,500	3	—	66.67	33.33	33.33	—	—
Milford	9,800	2	—	—	—	—	—	—

Two thousand one hundred and twenty-three deaths were reported: principal "zymotic" diseases (small-pox, measles, diphtheria and croup, diarrhœal diseases, whooping-cough, erysipelas, and fevers) 539, consumption 322, diphtheria and croup 189, lung diseases 183, diarrhœal diseases 148, scarlet fever 58, typhoid fever 68, malarial fevers 36, whooping-cough 26, cerebro-spinal meningitis 12, erysipelas six, measles five, trismus nascentium five, pleurisy two, yellow fever (Philadelphia) one, small-pox none. From *scarlet fever*, Chicago 14, Cincinnati seven, Providence six, Baltimore and Boston five, Brooklyn and Pittsburgh four, New York and Cleveland three, Philadelphia and Holyoke two, St. Louis, New Bedford, and Gloucester one. From *malarial fevers*, New York 12, New Orleans seven, Brooklyn and St. Louis three, Chicago, Baltimore, District of Columbia, and New Haven two, Cleveland, Pittsburgh, and Charleston one. From *whooping-cough*, New York nine, Baltimore four, Philadelphia and Boston three, St. Louis and Providence two, New Orleans, Pittsburgh, and Fitchburg one. From *erysipelas*, Brooklyn two, Chicago, St. Louis, Lawrence, and Lynn one. From *measles*, New York four, Chicago one. Diarrhœal diseases and malarial fevers continue to decrease; diphtheria and lung diseases to increase. In the 21 cities and towns of Massachusetts diarrhœal diseases are still declining.

In Philadelphia, Baltimore, and Cleveland the mean temperature was 68.5°, 71.4°, and 66° F.; barometer 30.21, 30.216, and 30.17. In Cleveland, the humidity was 95. The meteorological record for the week in Boston was as follows: —

Date.	Barometer.	Thermometer.			Relative Humidity.				Direction of Wind.			Velocity of Wind.			State of Weather.[1]			Rainfall.	
	Mean.	Mean.	Maximum.	Minimum.	7 A. M.	2 P. M.	9 P. M.	Mean.	7 A. M.	2 P. M.	9 P. M.	7 A. M.	2 P. M.	9 P. M.	7 A. M.	2 P. M.	9 P. M.	Duration.	Amount in Inches.
Oct. 5	30.017	68	81	53	63	23	55	47	SW	SW	W	11	8	6	C	F	C	—	—
" 6	30.360	54	69	52	93	74	74	80	NE	NE	SE	14	15	3	O	O	O	—	—
" 7	30.262	63	74	51	86	51	73	70	W	W	SW	8	14	12	O	C	C	—	—
" 8	30.104	72	88	60	82	42	70	65	W	W	W	13	6	9	F	F	C	—	—
" 9	30.094	66	78	62	79	70	89	79	NW	SE	E	5	4	5	F	O	O	—	—
" 10	30.261	57	69	54	100	94	100	98	NE	E	NE	8	6	8	R	O	G	6.67	.05
" 11	30.337	53	64	50	100	100	86	95	NE	E	S	14	9	1	R	O	O	12.83	.26
Week.	30.205	62	75	55				76	East			1039 miles.						19.5	.31

[1] O., cloudy; C., clear; F., fair; G., fog; H., hazy; S., smoky; R., rain; T., threatening.

The deaths from yellow fever in Memphis for the week ending October 18th were 31, cases 59. There were scattered cases in some of the smaller towns in the Southwest.

For the week ending September 30th, in 149 German cities and towns, with a population estimated at 7,597,336, the death-rate was 26.6 against 25.6 of the previous week. Three thousand eight hundred and eighty-two deaths were reported: diarrhœal diseases 787, consumption 397, diseases of the respiratory organs 228, diphtheria 112, scarlet fever 76, whooping-cough 64, typhoid fever 55, measles 25, puerperal fever 15, small-pox one, typhus fever none. The death-rates ranged from 12.7 in Lübeck to 39.6 in Chemnitz; Munich 34.6; Dresden 30.2; Berlin 30.8; Leipsic, 26.4; Hamburg 25.2; Hanover 18.6; Bremen 15.7; Cologne 23.0; Frankfort 26.8. Also for the same week, Vienna 23.3; Paris 24.0.

For the week ending September 27th, in the 20 English cities and towns, with a population estimated at 7,383,999, the death-rate was 18.8 against 19.4 of the previous week. Two thousand six hundred and sixty-three deaths were reported: diarrhœa 209, diseases of the respiratory organs 189, scarlet fever 144, measles 60, fever 54, whooping-cough 52, diphtheria 16, small-pox (London) two. The death-rates ranged from 13.1 in Oldham to 25.9 in Liverpool; London 17.2; Bristol 16.9; Birmingham 18.4; Manchester 25.8; Leeds 19.7. In Edinburgh 14, Glasgow 16, Dublin 24 (small-pox causing nine deaths). In 26 larger Belgian towns the death-rate was 26.8; in 22 smaller, 23.9, — small-pox, typhoid fever, and diarrhœa prevailing. In 20 prominent Swiss towns, diarrhœa and typhoid fever prevailed. The death-rates were: Brussels 19.8; Antwerp 27.3; Ghent 29.9; Geneva 20.2; Zurich 32.1; Basle 28.0.

GRADUATES OF HARVARD MEDICAL SCHOOL, 1879.

The following candidates received the degree of doctor of medicine at the annual commencement of Harvard University, Wednesday, June 25, 1879: —

Henry Halsey Battey,
Luther William Bennett,
Albert Franklin Blaisdell, A. M.,
Vincent Yardley Bowditch, A. B.,
Walter Prentice Bowers,
Henry White Broughton, A. B.,
Constant Broyer,
Robert Burns,
Herbert Leslie Burrell,
James Edwin Cleaves, A. B.,
George Lewis Collins, Ph. D.,
Robert Brewer Dixon,
Samuel Magner Donovan,
Thomas Moulton Durell,
James Dwight, A. B.,
Wyllis Gilbert Eaton, A. B.,
George Russell Fessenden, A. B.,
Frederick Fuller, A. B.,
William Whitworth Gannett, A. B.,
Guy Hubbard Gardner,
Charles Whitney Haddock,
David Graham Hall,
Henry Clement Hall,
Richard Cook Borden Hartley,
Henry Cecil Haven, A. B.,
Herbert Dexter Hicks,
Charles Edwin Hill, A. B.,
Francis Edward Hinds,
William Edward Holbrook, A. B.,
Walter Hamlin Holmes, A. B.,
Charles Parker Hooker,
Henry Hun, Ph. B.,
James Edward Keating,
George Frederick Keene, A. B.,
Walter Willis Larrabee,
Charles Eugene Meader,
George Westgate Mills, B. S.,
Samuel Jason Mixter, S. B.,
Francis Henry Mullen,
George Arthur Peavey,
Cyrus Tracey Peckham,
Walter Brewster Platt, Ph. B.,
Lewis Henry Plimpton, A. B.,
John Wheeler Pray,
Morton Henry Prince, A. B.,
James Munroe Randall,
Frank Reader Rix, A. B.,
Elliot Daniel Robbins,
Gorham Davis Rogers,
William Herbert Rollins, D. M. D.,
Edward Josiah Ruddock, A. B.,
William Brewster Sawyer, A. B.,
Francis Patrick Scully,
William Turner Simmons,
Jonathan Jason Smith,
Willis Parsons Spring, A. B.,
Myles Standish, A. M.,
Edwin Flye Stetson,
Gardner Taber Swarts,
William Wilder Townsend, A. B., M. D.,
Edric Allan Wade,
Alfred Walton,
Franklin Cooley Warren,
Lewis Jonathan Warren, A. B.,
Francis Sedgwick Watson, A. B.,
Frederick Ward Webber,
John Brooks Wheeler, A. B.,
Willard Wolcott,
Samuel Edwin Wyman, A. B.,
John Francis Young.

OFFICIAL LIST OF CHANGES OF STATIONS AND DUTIES OF OFFICERS OF THE MEDICAL DEPARTMENT U. S. ARMY, FROM OCTOBER 11, 1879, TO OCTOBER 17, 1879.

Horton, S. W., major and surgeon. To proceed from Omaha, Nebr., to Rawlins, Wy. T., and report in person to the department commander. S. O. 91, Department of the Platte, October 11, 1879.

Gibson, J. R., major and surgeon. At expiration of his present leave of absence to report in person to the commanding general Department of the East for assignment to duty. S. O. 235, A. G. O., October 13, 1879.

Brown, H. E., captain and assistant surgeon. Leave of absence extended one month. S. O. 111, Division of the Missouri, October 13, 1879.

Taylor, M. K., captain and assistant surgeon. To accompany second detachment of the fourth cavalry from Fort Clark to Fort Hays, Kansas, and return to proper station upon completion of this duty. S. O. 211, C. S., Department of Texas.

Vickery, R. S., captain and assistant surgeon. Assigned to duty at Fort D. A. Russell, Wy. T. S. O. 92, Department of the Platte, October 11, 1879.

Middleton, P., captain and assistant surgeon. Assigned to temporary duty as post surgeon at the post of San Antonio, Texas. S. O. 211, Department of Texas, October 7, 1879.

Kimball, G. P., captain and assistant surgeon. Confirms order of October 1, 1879, directing him to proceed to Rawlins, Wy. T., for duty in the field. S. O. 91, C. S., Department of the Platte.

DeWitt, C., captain and assistant surgeon. Confirms order of October 1, 1879, directing him to proceed to Rawlins, Wy. T., for duty in the field. S. O. 91, C. S., Department of the Platte.

Byrne, Charles B., captain and assistant surgeon. Relieved from duty in Department of Texas, to proceed to New York city, and, on arrival, report by letter to the surgeon-general. S. O. 235, C. S., A. G. O.

Turrill, H. S., first lieutenant and assistant surgeon. Relieved from duty at Fort Columbus, New York harbor, and assigned to duty at Madison Barracks, Sackett's Harbor, N. Y. S. O. 182, Department of the East, October 16, 1879.

Comegys, E. T., first lieutenant and assistant surgeon. Relieved from operation of paragraph 7, S. O. 210, C. S., from these head-quarters. S. O. 211, C. S., Department of Texas.

Kilbourne, H. S., first lieutenant and assistant surgeon. To report in person to commanding general Department of the East for assignment to duty. S. O. 235, C. S., A. G. O.

Moseley, E. B., first lieutenant and assistant surgeon. Having reported in person, relieved from duty at Fort Robinson, Nebr., and to report in person to the department commander at Rawlins, Wy. T. S. O. 89, Department of the Platte, October 6, 1879.

Biart, V., first lieutenant and assistant surgeon. Granted leave of absence for one year on surgeon's certificate of disability, to take effect October 1, 1879, with permission to go beyond sea. S. O. 232, C. S., A. G. O.

Death. — Phillips, H. J., captain and assistant surgeon. Died in New York city on October 10, 1879.

LIST OF CHANGES IN THE MEDICAL CORPS OF THE NAVY FOR THE WEEK ENDING OCTOBER 17, 1879.

Passed Assistant Surgeon A. M. Owen detached from the Marine Barracks, Washington, D. C., and ordered to the U. S. S. Ashuelot, per steamer of November 15th.

Surgeon J. H. Kidder ordered to the Marine Barracks, Washington, D. C.

Passed Assistant Surgeon P. Fitzsimmons to be detached from the U. S. S. Ashuelot on reporting of his relief, Dr. Owen, and to the Naval Hospital, Yokohama, Japan.

Passed Assistant Surgeon A. M. Moore detached from the Essex and waiting orders.

Books and Pamphlets Received. — Hygienic and Medical Reports by Medical Officers of the United States Navy. IV. Prepared for publication under the direction of the Surgeon-General of the Navy by Joseph B. Parker, A. M., M. D., Surgeon United States Navy. Washington: Government Printing Office. 1879.

The Feigned Insanity of Troye Dye. By G. L. Simmons, M. D. Harv. (Sacramento Society for Medical Improvement.)

A Clinical Treatise on the Diseases of the Nervous System. By M. Rosenthal, Professor of Diseases of the Nervous System at Vienna. With a Preface by Professor Charcot. Translated from the Author's Revised and Enlarged Edition by L. Putzel, M. D. Vol. II. (Wood's Library of Standard Medical Authors.) New York: William Wood & Co. 1879.

Annual Announcement of Graded Course of Study in the Medical Department of Yale College, Session of 1879–80.

Yellow Fever a Nautical Disease: Its Origin and Prevention. By John Gamgee. New York: D. Appleton & Co. 1879.

Darwinism: Its Weak and Strong Points. By A. J. Howe, M. D. (Read by title before Cincinnati Society Natural History.)

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LECTURES.

CLINICAL LECTURES ON THE PHYSIOLOGICAL PATHOLOGY OF SYPHILIS.[1]

DELIVERED AT THE COLLEGE OF PHYSICIANS AND SURGEONS, NEW YORK, SESSION OF 1878–79.

BY FESSENDEN N. OTIS, M. D.,
Clinical Professor of Genito-Urinary Diseases, etc.

IV. PERIOD OF GENERAL INFECTION AND SUBSEQUENT LOCALIZED CELL ACCUMULATION.

GENTLEMEN, — We have been able, thus far, to trace the progress of syphilitic infection, from the moment that the disease germs were deposited upon the surface of inoculation to their general dissemination throughout the blood vascular system. This has, I believe, been accomplished in complete harmony with the present state of our anatomical and pathological knowledge, and in unison with recognized physiological laws. This course may also have been observed to accord completely with the *clinical* history and condition of the cases brought before you as representing the various characteristic stages in the march of the infection, during the entire initiatory period of syphilis. At the termination of this period we found the progress of the infection signalized by the appearance of a rose-colored exanthem. To the immediate effect of the general dissemination of the diseased cells or virus throughout the organism was attributed the appearance of this so-called *roseola of syphilis*. Its accession was accepted as important only as announcing the constitutional infection. Very many cases occur where, either with or without treatment, no farther manifestation of syphilis takes places during the entire active period of the disease, and yet these apparently mild cases, when not efficiently treated, are sometimes sufferers in after years from grave forms of syphilitic sequelæ.

If, at this point, we take up again the natural history of syphilis in typical cases we shall find presenting an inflammatory engorgement of the mucous membrane of the tonsils, the border of the soft palate, and often of the whole faucial region.

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[1] Reported by P. Brynberg Porter, M. D.

In this connection your attention is directed to the fact that the tonsils have been accepted as belonging to the lymphatic system, representing a simple form of lymphatic gland. Although no direct communication has yet been demonstrated between the follicles composing the gland and the adjacent lymphatic vessels, Frey has shown that "the surface of each follicle is invested by an extraordinarily close net-work of lymphatic vessels."[1] The investigations of His, Recklinghausen, and Teichman have confirmed this statement, and have further shown that the lymph vessels so investing a follicle are greatly dilated, so much so that the follicle is quite covered in by them, "leaving only that extremity or pole uncovered which is directed toward the surface of the mucous membrane."[2]

The entire pharynx is much richer in lymphatics than the surrounding mucous membrane.[3] Here, then, in common with the engorgement and hyperplasia which has been observed at about this period in the lymphatic system at other points, we should expect early manifestations of similar disturbance.

Reasoning *a priori*, we should expect that these lymphatic accessories, when implicated in obstructive trouble, would be more readily engaged in true inflammatory engorgement, as they are brought by more superficial distribution into a more intimate connection with the blood vascular system than occurs in lymphoid glands of a higher order. This is just what we do find, leading in certain instances to quite extensive tissue loss through a consequent ulcerative process.

Now, also, at about this time, we begin to find, in a very considerable proportion of cases, a true papular eruption of the skin, — usually first observed along the borders of the hair, especially prominent and noticeable along the upper part of the forehead. It may also be seen scantily developed on the back, breast, and extremities. Again, it may be very thickly studded over the entire body. This eruption differs greatly in appearance as well as in quantity in different cases. Sometimes the papules are large and flat, from the size of a split pea up to that of a dime; again, small and pointed, and not larger than bird shot. The varieties which have been described by authors are numerous, and will be attended to later. It varies also as to the date of its advent. Occasionally it follows the roseola almost immediately; in some cases not making its appearance until several weeks or even months after. At first development it is of a bright color, more or less elevated, and hard to the touch. It is much more persistent than the roseola, remaining salient for several weeks, and not unfrequently for several months.

[1] Human and Comparative Histology, Stricker, Syd. Ed., vol. i. p. 328.

[2] Ibid., page 328.

[3] Ibid., page 326.

It gradually loses its bright hue, and assumes a dull red or ham color, and shows a tendency to shed thin epithelial scales, especially at the base of the papules. The color in fading assumes a brownish color, finally leaving, as the elevation disappears, a coppery stain. The papular eruption of syphilis, so called, is seldom purely papular, some of the original papules becoming pustular, or having little accumulations of serum at their summits, thus exhibiting, apparently, a polymorphous character.

Having now given you a general idea of the papular eruption of syphilis, I shall, before entering into an examination of the forces, material, and pathogenetic influences involved in its production, present several cases exhibiting this prominent and important manifestation of active syphilis for your observation and study.

Case VII. Here I am able to show you a common form of the papular syphilide, not extensive, but very characteristic. You may see along the upper border of the forehead perhaps twenty or thirty small red elevations, — *papules.* They are hard to the touch, insensitive, chiefly annoying to the patient because of their unsightly appearance. Their arrangement in this especial locality is significant, as simple papular eruptions are rarely so grouped without the occurrence of similar papules on the face, which in this instance you see is entirely free from them. Ricord has termed this variety of papular lesion the *corona veneris,* — the venereal crown. Here and there, in the eruption, we find a pustule, or a papule surmounted by a scab. Most of the papules, however, are simply smooth, hard, red elevations, about the size of a split and flattened pepper-corn. The patient states that he has none on any other part of his body. Let us see. A marked characteristic of this, as well as of all the eruptions of syphilis, is *insensitiveness.* Unless in sight, there is nothing to call attention to their presence. Having removed the patient's clothing, we find a few papules sparsely scattered over the back and shoulders. Just upon the right scapula is one which shows a scaling of the epidermis, at its base. This is occasionally seen, and I allude to it especially, because it is considered a valuable diagnostic mark. Biett, a distinguished French authority, first called attention to this, and it is now known as the *collarette of Biett.* I shall show you, later on, that, while its diagnostic value is accepted from a purely clinical point of view, it is one more of the many external evidences of lymphatic obstruction in the progress of syphilis, and that the scaling results from the same histo-genetic conditions that produced the abrasion in the papular initial lesion of syphilis.

It will be interesting now to observe the grounds upon which the diagnosis of papular syphilide is based in the present instance. Reversing the usual order of examination, we will retrace our study of the natural history of syphilis. Thus we have the roseola preceding the papular eruption. On turning the patient so that the light strikes fairly upon his breast and abdomen, I can see here and there a faint coppery stain. On the back, however, are several traces of a previous roseola, so distinct as to be unmistakable. This is evidence, aside from its bright color, that the papular eruption is recent. The patient's own statement in regard to the appearance of his eruption is that about a month since he began to suffer with headache and to be generally miserable, although he continued his work as a printer. Headache chiefly at night. The eruption on his forehead came out about a fortnight ago, but he has not ceased to suffer with an occasional headache. According to authorities, then, he has suffered from syphilitic fever, not ushered in with the roseola, which he had failed to observe, but apparently in connection with the later papular eruption.

Let us see, now, if we cannot find something in the condition of the lymphatic glands to account for his constitutional disturbance, independently both of the roseola and the papular eruption, and in accordance with views previously suggested. Here in the cervical region are well-marked enlargements of the glands, in all the places which I have mentioned as characteristic in this respect; also in the epitrochlear space of the left arm; none in the right. Now in the groins you can distinctly see, as well as feel, the enlarged and indurated glands. The free handling of these glands, without complaint on the patient's part, assures us that the enlargement is not inflammatory, but is the result of simple hyperplasia. We follow the line of gland enlargements, finding them, at last, most prominent and numerous in the inguinal regions. This naturally leads us to look for the initial lesion on the genitals. The earliest gland enlargements, you know, are always in immediate connection with the initial lesion, and this initial lesion may be, through direct or mediate contagion, at any point on the entire body. Thus, when it is on the finger or hand, the cubital and axillary glands will be first affected; when on the eyelid, the preauricular; when on the lips or in the mouth, the submaxillary region; when on the genitals, in the groin; when within the anus, above Poupart's ligament alone, etc.; hence, in cases where the locality of the initial lesion is unknown, these early gland hyperplasias may lead to its discovery.

Here the inguinal gland enlargements point to the genitals as the seat of the primary lesion. The patient admits occasional impure sexual exposures during a long period, but denies that he has had a sore of any sort, or any urethral discharge. Examining the usual localities for such lesions, namely, about the frænum, along the fossæ glandis and mucous reflection of the prepuce, we fail to detect any suspicious appearance or induration. On the integument of the right side of the penis we find a small, slightly indurated, brownish spot, about the size of a five-cent piece, covered with fine epidermic scales, much like a patch of psoriasis. The patient is quite unable to say how long this has been present. He noticed it several months ago (at least two or three), but inasmuch as it did not give him the slightest discomfort or inconvenience he paid no attention to it; thought it some skin trouble entirely unconnected with venereal disease. This apparently insignificant lesion, gentlemen, I present to you as a somewhat rare but characteristic variety of the *initial lesion* of syphilis, which may be termed *the dry, scaling patch.* It is not raised above the surface of the surrounding integument, and hence is not visibly a papule; yet its base is distinctly stiffened with a sort of parchment induration, as it is usually termed, due to a superficial cell deposit.

From the distribution of the lymph vessels of the skin (just underneath the epidermis, where this form of lesion is always found), we may understand the superficial character of the induration. This has not, as we can see, been sufficient to cause an erosion, nor even to prevent the evolution of the epidermis; but nutrition has been interfered with to the extent of producing the unhealthy desiccation of the epidermal layer, as observed in the present instance. This is but a simple and natural variation from the forms of initial lesion previously presented, and will help to impress upon you the important fact that the initial lesion of syphilis has no stereotyped form, but may assume any appearance between a prominent and dense hyperplasia, either intact or excavated, and a minute cell aggregation in the skin or mucous membrane so small as to defy clinical observation.[1] In whatever degree present, the infection may go on, as in this case it has evidently done, through the various early stages, until the characteristic papular eruption of syphilis is developed, as here seen.

(To be continued.)

PUNCTURED WOUND OF THE ABDOMEN AND COLON.

BY THOMAS R. WRIGHT, M. D.,

Demonstrator of Anatomy Medical Department University of Georgia, at Augusta.

THE following case, occurring in the practice of my friend, Dr. George T. Perrin, at the time practicing in the country a short distance from this city, and with whom I saw the case during its treatment, seems of sufficient interest to place on record.

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[1] Bäumler in speaking of variations in density, of the indurations associated with the initial lesion of syphilis, says: "From these cartilaginous indurations to the flat, paper-like thickenings of the mucous membrane, where the increased resistance is perceptible only in feeling of it sideways, all imaginable intermediate stages occur, *the one thing common to them all being the dense cellular infiltration of the tissue of the cutis or mucous membrane.*" (Ziemssen, vol. iii. p. 112.)

During the Christmas holidays of 1875, C. H., a well-developed negro man, about thirty-five years of age, in a drunken fight was stabbed in the right inguinal region with a large-sized pocket-knife. The cut, an inch and a half in length, was a little to the outer side of the centre of a line extending from the anterior superior spinous process of the ilium to the umbilicus, and at right angles to this line, penetrating the abdominal walls, and cutting diagonally into the ascending colon about seven eighths of an inch. No omentum came out, the intestine protruding in a mass as large as a goose egg. The external hæmorrhage was very little, owing probably to the hernia, which, pressing upon the edges of the wound, prevented it. No hæmatemesis or passage of blood per rectum. After cleansing the protruded mass of intestine, which had become covered with sand and dirt during the fight, the intestinal wound was closed by three interrupted sutures. Appreciating the value of animal ligatures in such cases, and the facility with which they would be dissolved and absorbed, a strand from an untwisted "violin E string" was used for this purpose. While the intestine was being sewed up, the man, from his drunken, excited state, was very unruly, his movements and peristaltic action, which was plainly visible, keeping up a constant discharge of fæcal matter from the wounded gut, which, however, did not enter the peritoneal cavity. After another washing the intestine was replaced, and the abdominal wound closed by three sutures with another piece of violin string, adhesive plaster, and compress. In passing the sutures through the abdominal walls care was taken not to penetrate the peritonæum, but to pass above it, and these sutures were all absorbed, excepting the knots, by the eighth day. Upon first seeing the case, shortly after the fight, the patient was given thirty drops of tinctura opii, which was repeated after his wounds were dressed. Cloths wet with cold water were ordered to be kept on his abdomen, and to be changed every fifteen minutes, or oftener if they became warm, and twenty-five drops of tinctura opii to be given three times a day, so as to restrain all movement of the bowels and keep the man quiet. The case progressed well, with no acceleration of pulse or temperature, until the morning of the third day, when some febrile excitement was noticed. Five grains of sulphate of quinine were immediately given, and repeated three times a day for three days, which controlled the fever, and there was no return. The man was kept in bed, lying on his back, a little inclined to the right side, for eight days, his diet during that time consisting of milk, beef, and chicken broth, with a little tea and coffee. By the eighth day, the external wound, save its lower end, had healed. At this point a small abscess had formed in the subserous areolar tissue, which was opened, and about an ounce of pus evacuated. This was dressed with Labarraque's solution, one ounce to the pint of water, for several days, and gave no farther trouble, the patient being up and about his house and yard on the ninth day. The bowels remained unmoved until the ninth day, when a large enema, introduced gradually and in small quantities, produced a full and free evacuation, with no trouble, the bowels regaining their normal action afterward. For a while after the man recovered there was a tendency to hernia at the wound, which was effectually and permanently relieved by a graduated circular compress, kept in place by a strong bandage around the abdomen. At the present time, nearly four years after the accident, the man is perfectly well, and able to do the hardest kind of manual labor, such as quarrying rock, etc., his injury never giving him the least trouble. Besides the abdominal wound, the man received four other stabs in different portions of his body, all of which healed kindly. It may be of interest to state that this case was seen in a negro cabin among a crowd of drunken, excited negroes, and his wounds dressed by the aid of a "light-wood torch."

The extreme fatality which attends penetrating or punctured wounds of the abdomen and intestines renders this case, which ended in recovery, of some interest. And it is worthy of note that at no time was the abdomen at all tympanitic or tender upon pressure save immediately around the wound, and that only for a short time. The animal ligatures in these cases cannot be too highly praised, and in conclusion I think we may, in part at least, attribute the successful issue of this case to them and the cold compresses.

Since preparing this case for publication, in looking over some "medical and surgical papers," by Prof. L. A. Dugas, of this city, I noticed a very similar case, which was successfully treated by him, and reported in the *Southern Medical and Surgical Journal* for July, 1852.

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CASES OF INTUSSUSCEPTION.

BY JAMES O. WHITNEY, M. D., PAWTUCKET, R. I.

THE case of ileo-cæcal intussusception related in the JOURNAL for September 25, 1879, by Dr. Starr, so nearly resembles one which I saw that I am induced to give it.

April 10, 1872, I was called to a little girl of this town. I found my patient to be a bright child of six years. She did not want to see me, "for he is like all the rest; he will do no good," she said. She was in the last stages of exhaustion, and lived but six hours. Her condition was notable in the extreme: lying upon the left side, with a pain every few minutes that closely resembled those of a woman in the last throes of labor, and to complete the resemblance, with a large tumor below the navel, but a little to the left of the median line of the body. The illness began two months before, and had not varied in its material feature, that is, paroxysmal pain in the abdomen, but how long it had had the expulsive character could not be ascertained. A variety of opinions had been given as to the nature of the sickness, and of course medication had varied accordingly. I explained to the parents interlap of the bowels, and illustrated with my glove fingers what had happened to their child, and that the tumor they had been told was a gathering abscess was the large bowel stuffed with other portions of the intestinal track. I found that the little sufferer had eaten *snow* inordinately, and to this I attributed the intussusception.

Accompanied by Dr. George A. Stanley, I made a post-mortem examination, and all the views advanced were verified. The descending colon contained the ascending, transverse and a part of itself with the small intestine. Had she lived a few days longer, no doubt the tumor would have appeared at the anus, as a portion of it was but an inch above that orifice. There had been no inflammation. The clinical facts led me to think that the telescoping began at once, and had been continuous two months, however much we may theorize that readjustment takes place for a few hours or days before the permanent entrance occurs. Dr. Starr seems to hold an opposite view on this point in his case. Colicky pains (spasms of the intestines) no doubt are the immediate preceding conditions or causes of intussusception; but from the moment when we can fix the pain to a given point in the abdomen, we must conclude that interlap has taken place, and *paroxysmal pain* is the great distinguishing fact in this variety of mechanical obstruction of the intestinal tube. There was no "stoppage" in the case I have so briefly related, and from this fact my opinion was derided prior to the autopsy. Readjustment no doubt takes place, and perfect restoration to health follows; but may this fail, agglutination occur, and life continue? I believe it may, although authors do not mention it that I am aware of.

In November, 1865, I had a patient who had all the rational and physical signs of intussusception of the transverse colon to the extent of an inch or a little more; there was the characteristic pain, the tumor, sudden in its appearance, five fearful days of "stoppage," abdominal distention, the tumor now submerged, as it were, then its reappearance upon the subsidence of the inflammation, and the subsequent health of the party, which all go to confirm this view. About two years since an abscess formed and pointed three or four inches below the tumor, which is not now to be felt, but there is a fistulous track leading up to its former site.

A few years ago I had a little boy who had all the signs of agglutinated interlap at the ileo-cæcal junction to the extent of four or five inches. I am unable to report the subsequent health of this patient, but the last time I examined him the tumor was present. There may be a doubt in this case, but none whatever in the other, that neither slough nor readjustment took place. Eating snow seemed to be the cause in the first case, imperfect mastication by reason of the removal of all the teeth in the female alluded to, and the boy was in the habit of devouring large quantities of peanuts and other fruit calculated to produce colicky pains in the intestines.

Some forty years since a fatal case of intussusception took place in Attleboro', Mass., in the practice of the late Dr. P. Savery. The patient was a boy fourteen years old, and eating large quantities of green chestnuts was the attributed cause. Telescoping of the bowels often takes place in cows and sheep, causing a fatal "stoppage," and these deaths are the most frequent in that part of the year when farmers feed upon, or allow their stock to feed on, uncooked potatoes, turnips, and such kinds of vegetables. My patient of 1865 often promises that I may make an autopsy if I outlive her, but from present appearances it is as likely that some one other than myself may do that. However, her loyalty to the science of medicine and to me is worthy of being noted. This case was read before the Providence Medical Association, and as I have full notes of it at a future time it may be given in detail to the readers of the JOURNAL.

UNUSUAL EFFECT OF A HYPODERMIC INJECTION OF MORPHIA.

BY AUG. M. TUPPER, M. D., ROCKPORT, MASS.

ON the morning of the 22d ult. I was called to see Mr. G., who was stopping at one of our hotels. I found a healthy-looking young man, about thirty years old, suffering from lumbago, confined to his bed, and in considerable pain, aggravated very much by movement. Applications of mustard and an anodyne liniment were prescribed. In the evening I called again, and as the relief was slight decided to inject some morphia directly over the seat of pain, a method I have found very efficacious in similar cases. Accordingly I injected nine drops of a solution of sulphate of morphia, one grain to a drachm of water, into a spot midway between the spine and crest of the ilium. As is my custom, the solution contained one drop of carbolic acid, which I added in order to keep it. In five minutes he expressed himself as feeling relieved, and sat up in bed to show us the improvement. I told him to lie down and keep still awhile, and he did so. We chatted pleasantly for perhaps five minutes longer, when, turning towards his wife, he said, "I think I am going to vomit," and turned to the side of the bed. I noticed that he looked a little pale, and before Mrs. G. could get the basin he grew deadly pale, his eyes rolled up in his head so that only the whites were visible, the jaws were clenched, the head was drawn back, and the whole body stiffened, respiration ceasing also. I immediately went to him, dashed cold water in his face, and took the wrist to feel his pulse, which, to my horror, was not to be felt. He was in this state for perhaps a minute. I then raised him up, and looking into his eyes, which were staring wide open, saw that the pupils were *widely dilated.* Very soon the color began to return to his face, he was drenched with perspiration, and recovered consciousness. I laid him back on the bed, and he looked up, smiled, and said, "I 'm all right now." The pulse was quite full at sixty, but inclined to be irregular. I gave him brandy freely, and he had no further trouble, but the pulse remained at sixty for the next twenty-four hours; he said it was usually about eighty. I cannot verify that, for he left town the following day.

That was certainly a very unusual effect from such a dose, a little over one eighth of a grain. The question arose in my mind whether the acid could have had anything to do with it; but I have given the same mixture a great many times without the slightest trouble. I may add that the solution was prepared that morning, and I injected the same dose into the same part of the body, for neuralgia, in a female patient that very same day, previous to using it on this patient. I should not care to repeat this operation on Mr. G., and advised him never to have it done again. I would also state that it relieved his lumbago, for the next afternoon he was dressed and down at his meals.

RECENT PROGRESS IN THE TREATMENT OF MENTAL DISEASES.

BY THEODORE W. FISHER, M. D. HARV.

The Moral Nature of the Great Sympathetic. — This is a paper read by Dr. R. M. Bucke, of London, Ontario, at the Association of Superintendents' meeting at Washington, last year, and is supplementary to another one read the year before at St. Louis, both of which are, we believe, parts of an essay by the same author published last June.[1] The mind, Dr. Bucke states, is made up of simple moral states, simple concepts, and of the infinite number of compounds formed from them. These compounds are of three kinds: (1) compounds of simple moral states, (2) compounds of concepts, (3) compounds of moral states and concepts. The elementary moral states are four, namely, faith, love, fear, and hate. In children faith, or confidence, and love seem to exist for a time as one primitive function. It is probable, also, that in animals, if not in children, the negative moral states of fear and hate are at first united. These simple states may be compounded with each other and with numerous complex concepts, so as to produce a great variety of feelings, passions, and emotions. Opposite moral states cannot of course be compounded, as love with hate. As compared with concepts the moral states are few and simple, requiring a proportionately small organic apparatus. The brain by its complexity is fitted for motor, sensory, and intellectual functions. The moral states have, however, a wide range of intensity. They are far more continuous also, emotional conditions lasting for hours and days sometimes, while ideas are exceedingly transient. The parallel between the known functions of the brain, sensation and motion, and those of the great sympathetic, nutrition and secretion, with the two sections of mind, intellect and feeling, is, the author thinks, very striking. The functions of the great sympathetic are continuous, have a wide range of intensity, and are intimately associated with emotional states.

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[1] Man's Moral Nature. An Essay by Richard Maurice Bucke, M. D., Superintendent of the Asylum for the Insane, London, Ont. New York: G. P. Putnam's Sons. Toronto, Ont.: Willing and Williamson. London, Eng.: Trübner & Co. 8vo. 1879.

Dr. Bucke argues from his own investigations, as well as from other sources, that there is an intimate relation between great vitality depending on the sympathetic and high morality. Persons of the highest moral nature live longest. He instances the Jews, men of distinction, women, and married persons. He finds the average age of 13,539 persons mentioned in a cyclopædia of biography to be sixty-three and a half years, which is ten years greater than the average of Englishmen who have become established in a business or profession. Of 11,093 men of note who had passed the age of fifty, one in thirty-two lived to be ninety, while by the English life table one in forty-one only live to that age. Women live longer than men by from two to four years. The moral nature in woman is more developed than in man, and the intellect less so. The great sympathetic is also larger, has more organs to supply, and the brain smaller, the average weight being forty-four ounces against forty-nine and a half ounces in man. The increased longevity in these four classes being associated with a higher morality, the hypothesis is warranted that the moral nature depends upon, or is a function of, the great sympathetic. This argument, it must be remembered, is only supplementary to a fuller treatment of the subject in the essay before mention. The moral nature, its limits, physical nature, and development are there considered, with "the inference to be drawn from its development as to the essential fact of the universe."

Psychometry. — Francis Galton, F. R. S., reports a series of subjective experiments,[1] intended to show the rate of the association of ideas, their character, date of formation, tendency to recurrence, and relative precedence. He finds that by patient effort a "whole strata of mental operations that have lapsed out of consciousness admit of being dragged into light, recorded, and treated statistically, and that the obscurity which attends the initial steps of our thoughts can be pierced and dissipated." By the use of written words, disclosed to sight singly, chronometer in hand, he obtained the data for his observations. He noted carefully the time which elapsed before an associated idea occurred, and also the idea itself against its associated word, using each word four times over. He found that five hundred and five ideas required six hundred and sixty seconds, which is at the rate of fifty ideas per minute, or three thousand per hour. This would be slow if the mind were allowed to pursue an uninterrupted train of ideas, as in reverie. The same ideas arose four times in twenty-three per cent. of cases, three times in twenty-one per cent., twice in twenty-three per cent., and once in thirty-three per cent. He believes that unless the mind often repeats an idea it loses it altogether. Recollections of early life he finds imperfect, though firmly fixed from frequent repetition. In old age the mind becomes less flexible, because it cannot help running in the well-defined tracks of familiar ideas. The multifarious work done by the mind in a state of semi-consciousness is startling, and seems to indicate a still deeper strata of ideas sunk below the level of consciousness. Though our ideas are marvelous for number and nimbleness, they are far from infinite in variety, and our working stock of them is quite limited.

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[1] Brain, July, 1879.

General Paralysis. — Dr. Bucknill, in discussing the pathology of general paralysis,[1] claims to have pointed out its special origin more than twenty years ago by showing the gradual failure of reflex action in this disease. He thinks the cerebral and spinal conditions which usually coexist are in a measure independent of each other, and that the chronic subinflammatory state of the meninges is not the fundamental morbid process. This he considers to be some undiscovered chemical or nutritive change affecting the whole nervous system. He says that Westphal [2] has failed to give due credit to his observations. In the article mentioned Westphal distinguishes two forms, — the tabic, in which the motor symptoms precede, due to gray degeneration of the posterior columns of the cord, and the paretic, in which the mental phenomena, usually dementia and optimism, are well advanced before motor symptoms supervene. We recently examined the brain in a case of general paralysis of the tabic form. The mental symptoms had been characteristic, although late in occurring, and the naked-eye appearances, such as opacity of the arachnoid, effusion, shrinking of the convolutions, and spots of decortication, were distinct. In its earliest stages the case had been diagnosticated by a competent neurologist as locomotor ataxia.

The Chemical Pathology of the Brain is the subject of a paper by Dr. Addison.[3] He experimented on the brains of twelve insane persons, and found that different parts of the same brain presented greater differences in their quantities of water and fat than in the sane; that the gray substance is poorer in fat than the white; that the matters soluble in ether stand in inverse relation to the quantity of water; that there is slightly more water and less fat than in sane brains; that in two cases of idiocy, one of dementia, and one of chronic melancholia the fat was less in quantity than in the brain of a new-born child; and that the quantity of phosphorus showed no parallel connection with the degree of intelligence.

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[1] Bucknill and Tuke, fourth edition, page 606.

[2] Archiv für Psychiatrie, No. 1.

[3] Journal of Mental Science, No. 58.

New Type of Insanity. — The members of the German Verein of Psychiatrie adopted last year a resolution, proposed by Dr. Meynert, recognizing, besides mania and melancholia, a third form of mental disease,[1] or primary insanity, described by Tigges as *Wahnsinn.* It is usually due to hereditary neurotic tendency. The patient is soft, morbidly sensitive, conceited, theatrical, mystical, or hypochondriacal; always thinking of the conduct or opinions of strangers as regards him, often imagining that he is persecuted or ill-used. Outbreaks of excitement are rare, and illusions or hallucinations only occasionally present. The self-accusation of melancholia is wanting, as well as the active aggressiveness of mania. Cases of this type were reported to be as numerous in the Vienna asylum as those of mania and melancholia together.

Periodical Melancholia. — William B. Neftel, M. D., in a paper read before the New York Medical Library Association,[2] treats of this not infrequent form of insanity. His remarks are based upon a case in which the disease had occurred almost annually for a period of twenty-three years, without developing any other form of insanity or tending to dementia. The recovery from each attack was complete, and often sudden. The attack lasted from four to eleven months, and the interval was about five months. Loss of flesh was an invariable accompaniment, followed by increase in weight on recovery. The attacks began with subacute anæmia, soon becoming general. The skin and mucous membranes were pale; the pulse was about 55, small and feeble; the veins dilated and distended with blood. There was a morbid alteration of nutrition, as shown by boils, eruptions, itching of the skin, and splitting of the hairs of the beard, with a diminution of all the secretions.

Dr. Neftel remarks that Guislain was the first to call attention to the fact that "the great majority of all mental diseases begin with a melancholic stage,[3] while Griesinger treated this psychical affection in close relation to nervous diseases in general,[4] and Krafft-Ebing[5] pointed out the analogies of melancholia and neuralgia. Indeed, melancholia can be considered as a psychical pain, a neurosis, a psychical neuralgia of the sensory centres in the cortical substance of the brain." There is a hyperæsthesia of these centres, so that slight external irritation will produce extreme mental distress. From the study of periodical melancholia Dr. Neftel concludes that its direct cause is anæmia of the brain or of some part of it, induced by vaso-motor spasm. Other signs are observed in the contracted pulse, pallor and flushing, cold extremities, and præcordial distress. The spasm is not constant, but probably recurs so frequently as to impair nutrition.

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[1] Psychiatriches Centralblatt, December, 1877, abstracted in Journal of Mental Science, April, 1879.

[2] Medical Record, August 14, 1875.

[3] Leçons orales, ii. p. 162.

[4] Pathologie und Therapie der psych. Krankh., 2 Aufl., page 213.

[5] Die Melancholie, page 3. Erlangen. 1874.

The treatment should be directed against this neuropathic condition. At the outset of the attack a few days' rest in bed are desirable, with remedies tending to the relief of spasm, such as tepid baths and opiates, which make life endurable and palliate the præcordial distress. Inhalations of ether, chloroform, nitrite of amyle, chloral, etc., may be tried. In the case in question, having exhausted all the known electro-therapeutic methods, the patient was sent into the country for the summer. On his return in the fall, without any change in his condition, he recovered after six days' treatment by a new plan, namely, the production by the polar method of anelectrotonus in the cervical sympathetic. This was followed by refreshing sleep, with a speedy disappearance of all the physical and mental derangements.

We are tempted to comment on this suggestive paper, — to speak of occasional sudden recoveries from melancholia, and of cure, permanent and perfect, after long attacks, of five years' duration, even in persons of advanced age. Such instances, as well as the almost certain recovery in periodic cases, should be used as means of encouragement in the treatment of mental depression. We have found massage of great benefit in a periodical case; also mono-bromated camphor. One patient got well suddenly from a third annual attack while camping out on the plains of Texas, and has remained so for three years. The cloud lifted, the gloom disappeared, the leaden cap was raised in a single night. Now and then the patient hears a snap, or feels something give way in his head, and is immediately relieved.

(*To be concluded.*)

PROCEEDINGS OF THE OBSTETRICAL SOCIETY OF BOSTON.

C. W. SWAN, M. D., SECRETARY.

October 12, 1878. — *Tubal Pregnancy; Death from Abdominal Hæmorrhage.* — Dr. Wellington reported the case. Last August he was called to see a servant-girl, who, after a hard day's work, had been taken suddenly with very severe pain in the lower part of the abdomen, with subsequent vomiting and collapse. He found her lying upon her left side, faint, cold, almost pulseless;

she could not be moved without great pain. Her mind was perfectly clear, and she stated that the menses had been natural. There was increasing dullness on percussion over the lower part of the abdomen, on the left side and continued vomiting. It was reported that she had had a similar but milder attack about two weeks before. She was a widow, aged twenty-nine. She at first denied pregnancy, but afterwards confessed that she was about two months advanced. The uterus was somewhat enlarged, and the cervix was softened. There was no external hæmorrhage. Dr. Wellington diagnosticated tubal pregnancy with rupture and hæmorrhage. This patient died at ten o'clock the next day.

Autopsy by Dr. H. O. Marcy, of Cambridgeport, six hours after death. Rigor mortis marked. Body well nourished. Tissues nearly bloodless. In abdominal cavity there were six pounds of blood, free and partly coagulated. Uterus enlarged as follows: length four inches; length of cervix one and five eighths inches; wall of fundus seven eighths inch in thickness; breadth at Fallopian tubes three inches; thickness of cervix one and one fourth inches. The right ovary had undergone cystic degeneration. The left Fallopian tube was twisted into the shape of the letter S by adhesions of firm fibrinous bands to the posterior wall of the uterus, the result, apparently, of an old pelvic cellulitis. Near its uterine extremity it was enlarged by a cyst of the size of an orange. This had ruptured upon its upper anterior border, leaving a triangular opening, the sides measuring respectively one and one fourth inches, one inch, and five eighths inch. No fœtus was found, but the villi of the chorion were interlaced with the hypertrophied mucous membrane of the tube, and there could be no doubt that this was a case of tubal pregnancy. The mucous membrane of the uterus and the uterine glands were hypertrophied, completely filling the uterine cavity. Corpus luteum as at second month of pregnancy; about three fourths inch in length, wall surrounding it yellowish, and but little color in central clot.

Dr. Lyman inquired if there was any hæmorrhage from the vagina. In these cases, as a rule, there was none, but it was sometimes present. He also remarked upon the diagnosis of this accident, especially in respect to the peculiar pain and collapse, and saw no reason why section of the abdominal wall and removal of the clot and ovum, and ligature of the bleeding part should not be resorted to. Cases might thus be saved which otherwise almost certainly would result fatally.

A Fatal Case of Puerperal Disease. — Dr. Richardson reported the case. Three weeks prior to the time of the meeting a woman was brought drunk to the Lying-In Hospital. She was supposed to be eight months pregnant. She was flowing badly, and her clothes were saturated with blood. A pulseless cord hung between her thighs. The placenta had become separated from an attachment high up, and had fallen down to the lower portion of the uterine cavity. The os was dilated, and the child turned and delivered. The next day or two the patient's condition was normal, excepting an inability to sleep, and large doses of bromide of potassium and chloral were given. The temperature was not above 99° F. On the fifth day there was a slightly offensive odor of the lochial discharge for twenty-four hours. There was no chill and no tenderness over the uterus. On the morning of the tenth day she was remarkably bright and lively. That night she was found walking about the wards. On the afternoon of the following day the temperature was 105° F., she was delirious, and thirty-six hours later she died. She had cough during the last twenty-four hours. An autopsy by Dr. Fitz revealed inceptive double pneumonia. There was ulceration of the cervix uteri, a slight superficial rent of the mucous membrane of the right side of the cervix, and an ulcerated condition of the lining membrane of the uterus, with a softened condition of the whole organ and of the spleen.

Fatal Puerperal Disease of Doubtful Character and Origin. — Dr. Edes reported the case of a lady confined with her second child on a certain Tuesday. A convalescence ensued, which was normal in every respect up to the evening of the following Tuesday, when the patient felt particularly well. That night she complained of feeling hot, and the nurse removed the clothes. On the following morning the temperature was 102° F., and there was very slight tenderness in the right groin. Castor-oil and quinia were administered. In the evening the temperature was 104.5° F., the next morning 100+° F.; then slight tenderness persisted, but there was no distention of the abdomen. The oil had operated. That evening the temperature was 105° F., the next morning 105+° F. Vaginal injections were used a few times, but came away almost uncolored, and were discontinued. Several loose, pasty dejections of grayish color had occurred. The patient was then seen in consultation by Dr. Reynolds. The only pain was during the passage of wind or fæces from the bowels. The next morning the patient appeared much better (temperature 100.5°+ F., with less tenderness), but in the afternoon there was a peculiar attack of collapse, with vomiting and purging. On the morning of the same day a slight swelling of the glands under the left jaw had been observed; later, under the right ear, the parotid being apparently the affected gland. On the right side these rapidly increased. The patient afterwards became delirious, and died the next morning. The lochia, which before the attack had become scanty and light colored, continued normal and absolutely without offensive odor throughout. The case was called one of puerperal pyæmia. A few days later a sister-in-law, who had been with the patient, went home, and had typhoid fever. It afterward appeared that she had for a week or two experienced unusual feelings of malaise and languor. The occurrence of these two cases led to an investigation of the house, and to the discovery of a bad condition in a vault attached to the house, the smell of the oil of peppermint, used as a test, escaping in various directions. — Dr. Lyman said he did not see why both cases might not be accounted for on the supposition of extraneous poisoning from the defective drainage. The symptoms need not have been those of typhoid fever, typically, nor was it necessary to suppose that the typhoid lesions must have occurred from drainage poison. — Dr. Richardson maintained that the case was one of puerperal septicæmia, on the supposition, for example, of a condition of subinvolution and the absorption of poison from lochial blood. — Dr. Edes asked why, if normal lochia were to be regarded as a septic poison and incomplete involution of the uterus constituted susceptibility on the part of the patient, every puerperal woman did not get septicæmia.

PROCEEDINGS OF THE SUFFOLK DISTRICT MEDICAL SOCIETY.

T. M. ROTCH, M. D., SECRETARY.

April 26, 1879. Sixty-nine members were present, Dr. C. D. Homans in the chair.

Dr. James Ayer finished his review of two thousand cases of midwifery, which, together with Dr. Channing's paper on Care of the Insane in Massachusetts, was reserved for publication.

Infantile Paralysis. — Dr. E. H. Bradford reported the following cases, and exhibited the patients: —

Case I. H., a healthy boy, with infantile paralysis of left thigh and leg, affecting the quadriceps extensor cruris and the extensors of the foot; the leg held bent at the knee, the foot in the position of talipes equinus, the muscles moving the thigh unaffected. The paralysis had followed a slight febrile attack one and one half years before. The child was quite active, and able to go about freely with the help of crutches; unable to stand without crutches, or to bear any weight upon the affected limb. After treatment directed to straighten the limb, no tenotomy being performed, and the application of apparatus especially adapted for the purpose, the child became able to bear his whole weight upon the affected limb. He can walk a mile, plays ball, climbs trees and engages in boys' sports, not needing a crutch or cane. If the apparatus is removed the child is as helpless as before.

The patient has been under observation for two years since the apparatus was first applied. He has grown in height, and the difference in the length of the limbs is slight. There has been no recovery or improvement in the muscular power of the affected muscles. The foot still has a tendency to the equinus position, which it assumes if the apparatus is left off for any time, but this is readily corrected when the apparatus is reapplied.

Case II. F., girl, five years old, infantile paralysis involving both lower extremities. Paralysis followed a febrile attack when the child was a year old. Both lower extremities smaller than normal. Complete paralysis of the extensors of the left leg (quadriceps extensor cruris), of the left foot, and of the extensors of the right foot. The right foot was in a position of equino-varus, unyielding to manipulation, and the left of equino-valgus. The muscles of the lower limbs not paralyzed were not as well developed as is usual in a child of her age. The child has never been able to stand even with the aid of crutches.

The distortions yielded readily to appropriate mechanical treatment, no tenotomy being performed. On removal of the distortion of the right foot, the child gradually gained the power of standing upon the right limb while leaning upon a chair. When apparatus is applied to the left limb and an ankle support to the right, the child is able to stand and walk. At last report the child had walked a quarter of a mile, taking hold of her father's hand and using a cane in her other hand. The child does not use crutches. If the apparatus is removed she is quite helpless. In the two years that the child has been under observation there has been no improvement in the paralyzed muscles. The general condition of the child has, however, improved in a marked degree, and the child has grown in height.

CASE III. M. A., seven years old, a case almost a duplicate of Case II., except that the attack of infantile paralysis did not take place until the child was six years old.

The application of apparatus after proper treatment to correct deformity was attended by a good deal of assistance to the child. The patient when apparatus is applied to the left limb is able to walk without cane, crutch, or additional support of any kind. If the apparatus is removed she is unable to step or stand except with crutches.

In treating infantile paralysis (infantile spinal paralysis, essential paralysis of children, myelitis of the anterior horns, as it is also called) certain facts are to be kept in mind which are frequently overlooked: (1.) The disease is primarily a lesion of the spinal cord.[1] (2.) The muscles dependent for their nervous supply upon the affected portion of the spinal cord are paralyzed, and usually degenerate secondarily.[2] (3.) There is almost always improvement in the paralysis in the six or eight months following the seizure; in some cases complete recovery takes place.[3] (4.) All recovery which is to take place occurs in the six months [4] or eight months [5] following the seizure; after this the affected muscles are to be regarded [6] as hopelessly injured. (5.) No treatment is known to influence the central (spinal) lesion; treatment should be directed to prevent degeneration of the muscles of the affected limb, to prevent and correct deformity, and to permit all locomotion possible.

Friction, electricity, application of warmth, should always be advised. The muscles most frequently found permanently paralyzed are those on the anterior and outer side of the leg, and on the anterior and outer side of the thigh.[7]

These are the muscles which are kept upon the stretch when the knee is bent and the foot dropped, a position almost invariably held by a paralyzed leg. It is probable that these facts stand in the relation of effect and cause.[8] The patient is paralyzed because of a lesion of the spinal cord. The affected limbs are in a state of impaired nervous supply. As the spinal lesion improves, in the natural process of recovery there is a gradual improvement in the paralysis. Certain muscles which have been injured by being constantly stretched (when in an enfeebled state) have become so far degenerated that they cannot recover, even though the central lesion is better, as completely as other muscles which have not been stretched.[9] The muscles on the anterior part of the leg and thigh should therefore be protected from being overstretched in the six months following the paralytic seizure.

Deformities following infantile paralysis can be corrected usually with comparative ease by traction upon the shortened muscles. Tenotomy is by no means always necessary in the treatment. There is frequently, however, a tendency to relapse, it being impossible to remove the primary cause of the deformity, namely, the paralysis.

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[1] Vide Charcot, Maladies des Système nerveux. Seguin, Myelitis of the Anterior Horns.

[2] Charcot.

[3] Vide Meyer, Medical Electricity, translated by Hammond.

[4] Volkmann, klinische Vorträge, No. 1.

[5] Charcot.

[6] Charcot.

[7] Laborde, Paralysie de l'Enfance.

[8] Vide Taylor, Infantile Paralysis.

[9] In infantile paralysis of the upper extremity the deltoid muscles rarely recover. (Laborde.)

After the deformity is corrected and the limb is comparatively straight, it is possible for the patient to stand, provided the bones can be prevented from falling out of the line of support. If a child with paralysis of the quadriceps extensor femoris attempt to stand on the paralyzed limb, the knee drops forward, as there is no muscular power to check it. The child can stand if by mechanical means the knee is kept from dropping forwards, the lateral and crucial ligaments and the bony formation of the articulation of the femur and tibia keeping the limb from deviating in any other direction. This was clearly illustrated in the three cases here reported.

The distortions of the foot resulting from infantile paralysis affecting the muscles of the leg yield much more readily to traction or to treatment without tenotomy than congenital club-foot. For the patient to stand or walk with comparative ease it is important that the ankle should be prevented from falling to the inner or outer side when the weight is thrown upon the foot.

The choice of apparatus is a matter of a good deal of importance in treating these cases; it is, unfortunately, a matter often neglected. Physicians who would consider themselves careless if they should send a patient with a Colles's fracture or fracture of the humerus to an instrument maker with a request that a splint be furnished, frequently order apparatus for infantile paralysis without a thought as to whether the indications for proper support are met in the appliance furnished, or, in other words, whether the "brace" is of any use or not. Very little, if any, special skill is required in devising and applying apparatus for these cases. The appliance can be simple, and should be made for each individual case to supplement the paralyzed muscles. This is a thing which any surgeon can understand, and any blacksmith can make under his directions.

Color-Blindness. — Dr. B. Joy Jeffries reported the statistical results of his examinations for color-blindness in the colleges and schools of this community, which have been since published in his work on Color-Blindness, its Dangers and its Detection. The percentage he found to hold in the same proportion as he had previously reported to the society, namely, about four per cent. of males, whilst in the females he had discovered with the same test — that of Professor Holmgren with the worsteds — only four cases among over seven thousand.

He also described by diagrams, etc., Professor Holmgren's chromatoskiameter, or color-sense tester, by which the degree of color-blindness could be determined, and spoke of its being employed to test over again the railway employees of Sweden who had been found deficient by the worsted test. Its value as showing the distinction between *red* and *green* blindness was pointed out.

Dr. Jeffries then showed Professor Donders's method of determining color-blindness quantitatively, precisely as used on the Holland railroads. He afterwards exhibited and explained by an apparatus with double lights and apertures the method of testing by signal lanterns, and illustrated how the color-blind really saw the lights, as also how they distinguished them, relying solely on the difference in the *intensity* of the light. He briefly spoke, in closing, of the necessity of such laws of control of color-blindness on land and sea as are now in force in Europe, and of the action of the legislature of Massachusetts.

We are much indebted to Dr. Tupper for the report of his case, and should be glad if our correspondents would inform us of similar unusual experiences occurring in their practice.

THE REPORT OF THE PHILADELPHIA BOARD OF HEALTH.

There were fewer marriages reported in Philadelphia in 1876 than in any other year since 1862, or at the very small rate of 12.93 per 1000; the living births reported, 17,799, do not represent the full number; the deaths are thought to be accurately returned, and the number, 18,892, was greater than in any other year except 1872. If the population was correctly estimated at 825,594, the death-rate, 22.88, was exceeded in only one year of the decennial period, 1872, and was 0.25 greater than the average for sixteen years. The deaths were 1087 more than in 1875, 3654 more than in 1874, and 3668 more than in 1873.

Small-pox was unusually fatal, but, fortunately, was met with vigorous measures, and the epidemic steadily declined from the time of the opening of the Centennial Exhibition, in spite of the great crowds and the constant movement and intercourse of the population. Cholera infantum was more prevalent than common, and typhoid fever decidedly so, the average temperature of the three summer months having been very high, and the rain-fall extremely small. Diphtheria was more fatal than ever before, and prevailed most in the outlying parts of the city; scarlet fever was very mild, and measles quite so.

The deaths from typhoid fever were 773, nearly double the average of the previous ten years. The water supply of the city was contaminated with human excrement, and we think that few persons will see the force of the reasoning that "the limited number of cases of typhoid fever in Philadelphia is then opposed to the idea that a poisoned drinking-water was the cause of the epidemic," on the strength of Parker's statement that "a very large proportion of the susceptible persons who drink the water (contaminated with typhoid 'germs') is affected." We know that very many people were careful not to drink it, and should suppose, too, that the number of cases would be small or great in proportion to the dilution of the filth in the water. A more conclusive argument is that the parts of the city supplied by the most impure water did not feel the increase in the typhoid rate so much as others "where the streets were unsupplied with sewers, and the privies in the rear of the houses sometimes became, escaping the notice of the authorities, so full as to overflow their margins, and in some instances, being imperfectly lined, allowed their contents to soak through the surrounding soil." Instead of the employment of twenty different companies to empty these vaults, as now, the abolition of the privies is recommended in favor of a well-devised sewer system. In noting the slight mortality among the visitors to the Exhibition, and inferring a favorable condition of the public health therefrom, sight has apparently been lost of the fact that many strangers contracted typhoid fever there, and died at home.

Among the most important of the good works done in the city are regulating the public abattoir and slowly getting rid of the slaughter-houses; removal of places for burning lime; regulation of buildings on land newly made from sweepings, etc.; removal of garbage; paving the streets with Belgian blocks; sweeping the streets only at night in summer; and a movement to put a stop to the few thousand intramural interments now made each year.

SUDDEN DEATH FROM INJURY.

A CASE of sudden death during an operation has recently occurred in Chicago that has attracted general interest. A young man received a pistol-shot — evidently a small bullet — under the right eye. A large swelling immediately appeared at the angle of the right jaw. Two days later, when first seen by his doctor, — Dr. E. W. Lee, — inflammation existed in this mass, making an aspect like that from mumps. The mouth could not be opened, and there was fever. In a week the fever and inflammation had abated or disappeared, and the patient was moving about. Swallowing and speech, difficult at first, had not much improved. The patient returning at the end of two weeks after the injury for relief from the symptoms mentioned, Dr. Lee for the first time was able to open the patient's mouth sufficiently for an inspection of this cavity. (The patient had not been seen for one week.) Now there was found a tumor projecting from the roof of the mouth, over the hard palate on the right side, of the size of a hickory nut, and looking translucent and œdematous. It was hardish, and without fluctuation. It being thought proper to explore the mass, a small cut was made into it with a gum lancet; a few dark clots of blood came out. Next, a free incision across the mass was made; out came other dark clots, then an impetuous gush of arterial blood. Effort was made to tampon the opening with a handkerchief, but the struggles and biting of the patient made its accomplishment impossible, and the man died of the hæmorrhage in two minutes.

The autopsy revealed the bullet lodged in the posterior wall of the internal carotid artery, it having passed through this vessel, making a rent in its anterior wall, through which blood had issued, forming and filling the cavity of a large aneurism. The pressure within this sac had been such that the blood had burrowed its way beneath the mucous membrane, up the right side of the throat, and forward upon the roof of the mouth, beneath the periosteum, forming the tumor opened by the operation. Thus the surgeon's cut, although two inches from the carotid, had entered an aneurismal sac directly connecting with a large opening in that vessel. The clots remaining in the aneurism were in an advanced stage of softening, and about the lower part of the cavity pus was found in small quantity.

Dr. Fenger, who made the autopsy, testified, at the inquest, that death would have occurred within a few days had no operation been performed; that, pus having begun to be formed, it would have made an opening externally, as in the history of all abscesses, when death suddenly from hæmorrhage would have taken place.

Prof. Moses Gunn, who was called by the coroner as an expert, testified that, after listening to the testimony of Drs. Lee and Fenger, and after examining the morbid specimen, he felt bound to express his belief that an accident similar to the one under investigation might have happened in his own hands under similar circumstances. He thought surgical caution would warrant the exploration of such a tumor as was found in this patient's mouth, and that a surgeon would not and could not foresee that such a tumor communicated at such a distance with an aneurism. He thought the probabilities all pointed to an early death by a spontaneous opening of this aneurism had it been left undisturbed. Other expert testimony — namely, of Drs. Dunn and Hobbs — pointed to the same conclusion as that reached by Drs. Fenger and Gunn. There was none of an opposite kind.

The jury returned a verdict in accordance with the facts, closing with the declaration that "under the circumstances he [the surgeon] was perfectly justified in making such incision."

MEDICAL NOTES.

— A sorrowful close has come to the career of a distinguished English surgeon, recently on a visit to this country, who passed some time in Philadelphia, — Mr. George W. Callender, surgeon to St. Bartholomew's Hospital, London. He had made two visits to the United States, as has become the custom of so many of the intellectual, studious, and professional men of Great Britain and Ireland, the last one within a few months. He arrived here in the steamship Gallia in August last, and, returning home by the same ship, which sailed October 15th, he died of Bright's disease on shipboard October 20th. Mr. Callender was a very skillful surgeon, a man of rare ability, and of eminent social position. In this country he was warmly welcomed, and had many friends, especially among medical men, to some of whom he had shown great attention abroad, and his decease at the threshold of his own country on his return home is very deeply deplored. He was accompanied on his last visit here by his two daughters, to whom the father's death is a grievous loss.

— The *Nashville Journal of Medicine and Surgery*, in noticing Dr. Long's claim as the discoverer of anæsthesia, says, "Looking at the matter in all its bearings, the question of priority of discovery is a most ridiculous one, and deserves not to be entertained a moment. To Dr. William T. G. Morton, first of all, belongs the honor of the discovery of anæsthesia, and to him the world should give the full meed of praise. 'Honor to whom honor is due.'"

— The town of Woonsocket, R. I., is soon to have a new hospital. The late Dr. Ezekiel Fowler, of that town, left at his death a considerable sum of money to be devoted to this purpose. The accumulations of this bequest, together with additions by other donors, have amounted to such a sum as to warrant the commencement of the enterprise. The hospital is to be built upon the pavilion system, and will be practically free. Dr. Ariel Ballou is the president of the corporation, and it is largely through his efforts that the accomplishment of the purpose of the original donor is now so near at hand. Woonsocket is a manufacturing town of nearly fifteen thousand inhabitants, and the establishment of a free hospital within its limits cannot fail to be of immense benefit.

— Dr. Löwenburg recommends the following method of gargling the naso-pharyngeal cavity: The patient inclines the head horizontally backward, and performs movements which we may call "quasi-deglutition," not including the last portion of this physiological action, definite swallowing. The liquid is passed much higher behind the soft palate than the ordinary method of gargling will permit; some persons succeed so well in this manœuvre that they are able to reject by the nose the liquid which has been received by the mouth. Moreover, these rapid muscular contractions completely detach the abnormal secretions, which can then be easily expelled, and the greatest possible relief is thus given to the patient.

A better method is to fill the mouth with the tongue; this confines the gargle to the pharynx. The head should then be bowed in a forward direction until the top of the cranium is its lowest portion. In this position the gargle will not only wash the roof of the pharynx, — giving it a sort of sitz-bath, as it were, — but if the patient have caught the trick will flow forward through the nose.

— A correspondent of the *Lancet* writes strongly in favor of a combination of the iodide and bromide of potassium in cases of epilepsy. He says that this mixture will soon effect a cure, even in those cases which have defied the bromide.

— Dr. Maunsell, a well-known and influential professor in the Royal College of Surgeons in Dublin, and the author of two medical works which have done credit to the Dublin school, recently died at the age of seventy-four years.

— M. Hervieux reported the following case at a recent meeting of the Paris Académie. A young girl aged twenty-two, five months pregnant, had contracted well-marked syphilis. She, however, was confined at full period of a well-shaped child in good health. But in the placenta there existed from fifteen to eighteen mammillated tumors, which Dr. Hervieux considered to be gummata. His opinion was contested by Drs. De Paul and Larnier.

NEW YORK.

— At the late O'Leary walking-match at the Madison Square Garden, one of the starters was "Dr." Richard Cromwell, a rather curious specimen, from California. On the eve of the walk he stated that he was a physician worth a hundred thousand dollars; that he had written three books on walking, and that he intended to write another on his experience in this contest. He also said that he "had malarial fever on Friday, gastric fever on Saturday, a severe attack of colic Sunday, and then came on the track feeling like a lark." During the short period that he was a competitor for the five-thousand-dollar prize he was gorgeous in Indian trappings; but at the end of twenty-five miles his ambition in the way of pedestrianism appeared to be entirely satisfied, and he quietly withdrew from the race.

PHILADELPHIA.

— The first part of the month of October in this locality has presented a remarkable record of continuous warm weather. A grateful change occurred on the 18th, but during the first seventeen days it seemed much more like August than October. Upon consulting the records at the Pennsylvania Hospital (which extend back to the year 1825), it was found that this hot weather was unprecedented. In the fifty-four years from 1825 to 1878, inclusive, there were 1674 October days. During only *eleven* out of those 1674 days the thermometer marked 80 degrees or upwards. But during October, 1879, the thermometer at the same place has marked 80 degrees or over on *eleven* out of seventeen days, as follows: first, 88 degrees; second, 84 degrees; third, 87 degrees; fifth, 80 degrees; sixth, 80 degrees; ninth, 80 degrees; tenth 80 degrees; thirteenth, 80 degrees; fifteenth, 83 degrees; sixteenth, 85 degrees; and seventeenth, 83 degrees. The mercury has been over 70 degrees every day in the month up to the date named except on the fifth; it had not at any time fallen lower than 55 degrees. Since 1825 the mercury had never risen higher than 87 degrees in October until this present month, and that was for one day in the month only.

— One of the consequences of the unexpected heated term was the possibility of a small outbreak of yellow fever, just as a warning to our authorities for next summer, as our streets are in a bad condition. As quarantine expired on September 30th, the officers relaxed their vigilance somewhat on the last day, and allowed a vessel to pass which had come directly from an infected port in Cuba, and had lost the steward on the passage, the captain declaring that the man had died from accident, the result of a fall. On October 4th the mate of the vessel was sent to Jefferson College Hospital suffering with fever. On the 6th he was decidedly jaundiced, and had the characteristic vomit of yellow fever. He was at once transferred to the Municipal Hospital, where he died the same night. The vessel was at once taken in charge by the quarantine officers, and fumigated, and the captain held to answer the charge of making a false return to the health officer. No more cases have occurred.

— Prof. Wm. Goodell recently performed double ovariotomy for the relief of metrorrhagia accompanying uterine fibroma of large size. The ovaries were removed by laparotomy, the operator having failed to seize these organs by a previous vaginal incision.[1]

— At the October meeting of the Pathological Society the following officers were elected for the ensuing year: president, S. W. Gross; vice-presidents, Wm. Norris, J. Ewing Mears, Jas. Tyson, and J. Solis Cohen; secretary, Morris J. Lewis; treasurer, John B. Roberts.

— At the Pennsylvania Hospital, Dr. Morton recently used Bonvill's dental engine for drilling the bone in a case of ununited fracture; it accomplished the purpose with remarkable facility.

CHICAGO.

— Rush Medical College has a class of four hundred and eighteen students, an increase of nearly fifty over last year, notwithstanding the fees have been raised from fifty-five to seventy-five dollars. This would indicate that the time is ripe for a further advance in the requirements for graduation.

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[1] For remarks upon this operation see JOURNAL for 1879, vol. c. p. 841.

THE LONDON HOSPITALS.

Mr. Editor, — At this time of year, when the number of hospital patients is comparatively small, and most of the principal physicians and surgeons are out of town, there is not much to be seen in any of the London hospitals. During my stay here I have visited three, St. Thomas's, St. Bartholomew's, and the London. At St. Thomas's I saw no operations, but in the wards of Mr. McCormac was a successful result of the operation for knock-knee, by sawing off a piece of the inner condyle. The patient was a boy fourteen years old. Lister's method had been employed in the operation and subsequent dressings. The legs, whose tibiæ had been at an angle of one hundred and thirty-five degrees with the femora, were brought into a straight line, and bandaged to long Dupuytren's splints. The leg last operated on is still confined to the splint, so that its condition cannot as yet be positively ascertained, but the other leg is almost perfectly straight, and with the exception of some laxity of the ligaments about the joint, which it is thought time will correct, seems very serviceable. Another excellent result in the wards of the same gentleman was that of a plastic operation for exstrophy of the bladder.

I saw at St. Thomas's a very effectual way of removing plaster of Paris from the hands, an item which may be interesting to those who have much to do with plaster bandages. It consists merely in the use of white of egg instead of soap in washing the hands, and answers the purpose admirably, as I had occasion to observe.

At the London Hospital quite a remarkable case was shown in the wards of Mr. Adams. It was the successful result of operation for a strangulated hernia with rupture of the intestine. The hernia, which was of some years' standing, became strangulated two weeks before. Violent attempts at reduction were made by the patient himself, a middle-aged man. At the operation, which was performed very shortly afterward, Mr. Adams found in the intestine a rent an inch long, from which the intestinal contents were escaping. The sac was lacerated, and the surrounding parts were much bruised. The rent in the intestine was sewed up with catgut; the incision was also sewed up, and a drainage-tube inserted. The patient did very well, and is now almost recovered. One end of the incision still remains open, and discharges a little pus, but is granulating well. The operation was not antiseptic.

Subcutaneous section of the shaft of the femur was illustrated in the case of a girl, twelve years old, who entered the hospital with strong flexion, adduction, and inversion of the right thigh, the result of old hip disease. Mr. Adams divided the shaft of the femur subcutaneously, just below the neck, drew the leg down parallel with the other, and applied a Dupuytren's splint. No unfavorable symptoms followed the operation. The patient is now, at the end of three weeks, doing well. Both legs are straight, and prove, on measurement, to be of equal length. It is, of course, still too early to determine the utimate result of the operation. Two or three cases of fractured thigh in small children were treated by an apparatus of which Mr. Adams spoke very highly. The fractured thigh is put up in a Buck's extension, and the child is put into a frame consisting of two long Desault's splints running up to the axillæ, and connected below the feet by a cross-piece, through which the extension cord runs. The splints are bandaged to the body, and each leg is bandaged to the splint which lies against its outer surface. The child is thus rendered immovable below the shoulders, while at the same time extension is kept up.

I was fortunate enough to visit St. Bartholomew's on operating day, and thus was able to see two operations, one by Mr. Langton, one of the assistant surgeons, and the other by Mr. Smith, of the visiting staff. Mr. Langton's operation was the exploration of a sinus in the lumbar region. It was done under carbolic spray, and the Lister dressing was afterwards applied, rather an uncommon thing for St. Bartholomew's, where the "Callender" dressing is generally used. The spray was produced by a hand atomizer, worked by one of the attendants. Mr. Smith's operation was for exstrophy of the bladder, and was a most interesting one. The patient was a boy, ten years of age. Several months ago Mr. Smith operated on him by fastening the left ureter into the colon, thus allowing the urine from the left kidney to flow into the intestine instead of the bladder, and to be discharged per rectum. The patient made a good recovery, and has been playing about the hospital ever since, apparently suffering no ill effects or even discomfort from the presence of urine in his rectum. On the present occasion the operation was repeated on the opposite side. A small elastic bougie was passed into the right ureter from the opening in front. The patient was then turned on the left side, and an incision was made in the right lumbar region, exposing the right ureter and the colon. The ureter was then cut away from the bladder, and fastened with fine silver sutures into a small incision which was made in the colon. Catgut ligatures were used throughout. A rubber drainage-tube was inserted, and the wound loosely sewed up. The dressing consisted of lint soaked in carbolic oil. No spray was used. If the second operation proves as successful as the first, Mr. Smith intends finally to perform the ordinary plastic operation for exstrophy.

I was surprised to find that at St. Bartholomew's adult patients are not chloroformed, but are anæsthetized with a mixture of ether and nitrous oxide. It is claimed that this mixture works more quickly and with less discomfort to the patient than pure ether. The patient on whom I saw it used was certainly anæsthetized very quickly, and with little apparent discomfort. The anæsthetic was administered with an inhaler, which I was unable to examine closely. It consisted of a mouth-piece connected by a rubber tube with a reservoir which contained the anæsthetic, and was arranged so that any desired proportion of air could be admitted. Chloroform is given, however, to patients under fourteen years of age, as it is not considered dangerous to children. It was used in the operation last described.

The "Callender" dressing at St. Bartholomew's consists of an indefinite number of thicknesses of lint soaked in carbolized oil and covered with gutta-percha protective. Mr. Callender's house surgeon says that with this dressing first intention is the rule, and that there has been no case of erysipelas in his wards within six months.

A vesical calculus is to be crushed at St. Bartholomew's on the 29th inst. by Dr. Bigelow's method. It will be the first time that litholapaxy has ever been tried at that hospital. JOHN B. WHEELER.

LONDON, *August* 27, 1879.

SHORT COMMUNICATIONS.

LYMPHADENOSIS, WITH BROWN PIGMENTATION OF SKIN.

BY WILLIAM CHILD, M. D., BATH, N. H.

IN the *London Lancet* for June, 1879, is reported a case of lymphadenosis, with brown pigmentation of the skin. Having recently had a case similar in many respects, and believing that cases of lymphadenosis are rare among country physicians, I submit the following: —

In June, 1878, F. S., aged thirty-five, came to my office for treatment. He stated that he was a farmer; that he had been generally in good health, never had any severe illness, and was temperate; that about nine months ago there came a swelling in left side of the neck, and a small, hard swelling just above the left clavicle; that, soon after, similar swellings came upon the right side of the neck and under each arm; that he was weak, had bad digestion, constipation, and night sweats.

On examination, I found large clusters of glands in the cervical and supra-clavicular regions, and in each axilla, enlarged, hard, and movable; face pale; skin moist; tongue little coated; pulse 100; temperature normal; urine without albumen, but it had frequently a deposit.

During the next few months he seemed to improve, taking hypophosphites of soda and lime, and living near the sea-shore. Early in the next winter the glands again increased in size, and also glands in the groins became diseased, and probably those in the abdomen and chest. The abdomen was full, with certain points firm and hardened; he had now and then dyspnœa, with coarse râles in upper part of left chest; night sweats increased; appetite less; strength failing. About this time appeared (1) in the loins patches of a brown color resembling those found in Addison's disease; (2) the soft parts about the left hip and thigh became thickened and brawny, but not discolored. This condition continued until his death, about two years from the first appearance of the disease. No post mortem was made.

In the case reported in the *Lancet* an autopsy showed that the supra-renal capsules were perfectly normal, but that the semilunar ganglia and solar plexus were involved in a closely aggregated mass of enlarged lymphatic glands. Says the *Lancet:* —

"From these facts two inferences may be fairly drawn: (1) that in Addison's disease the peculiar discoloration of the skin is not due immediately to the disease of the supra-renal bodies *per se;* (2) that it is due to extension of disease from these bodies to the sympathetic nervous centres in their neighborhood.

"Other published observations go far to establish the latter proposition as a sure fact. And if it be a fact it is the more interesting, because it is not likely to be an isolated fact in the agency of the nervous system. It points to this system as the agency through which are produced the dark areolæ of pregnant women and the brownish discoloration of other parts of the skin seen frequently in pregnancy, and occasionally in other cases without obvious cause."

REPORTED MORTALITY FOR THE WEEK ENDING OCTOBER 18, 1879.

Cities.	Population estimated for July, 1879.	Reported Deaths in each.	Deaths under Five Years.	Percentage of total Deaths from				
				The Principal "Zymotic" Diseases.	Diphtheria and Croup.	Lung Diseases.	Diarrhœal Diseases.	Typhoid Fever.
New York	1,085,000	415	193	23.13	4.34	15.66	11.81	1.21
Philadelphia	901,380	228	85	12.28	7.02	4.83	—	2.63
Brooklyn	564,400	198	92	25.75	10.10	14.14	6.56	1.52
Chicago	537,624	123	57	28.46	16.26	4.07	3.25	4.07
St. Louis	500,000	100	42	26.00	7.00	2.00	7.00	3.00
Baltimore	393,796	137	65	33.58	14.60	8.03	3.65	2.92
Boston	360,000	120	41	27.50	8.33	5.00	9.17	1.67
Cincinnati	280,000	91	40	19.78	—	6.59	6.59	—
New Orleans	210,000	88	—	17.05	4.55	2.27	3.41	—
District of Columbia	170,000	48	16	14.58	—	6.25	8.33	6.25
Cleveland	160,000	48	25	37.50	14.58	2.08	10.42	2.08
Pittsburgh	145,000	53	22	41.51	20.75	5.65	1.89	3.77
Buffalo	—	—	—	—	—	—	—	—
Milwaukee	127,000	33	15	33.33	27.27	3.03	—	—
Providence	101,500	34	12	26.47	14.71	2.94	—	—
New Haven	60,000	15	5	13.33	13.33	13.33	—	—
Charleston	57,000	33	17	15.15	3.03	—	3.03	6.06
Nashville	27,000	11	—	18.18	—	—	9.09	9.09
Lowell	53,300	26	—	30.77	11.54	7.69	11.54	7.69
Worcester	52,500	12	9	41.67	16.67	8.33	16.67	—
Cambridge	50,000	19	8	31.58	15.79	15.79	15.79	—
Fall River	48,500	12	—	41.67	8.33	—	—	—
Lawrence	38,200	10	4	10.00	10.00	10.00	—	—
Lynn	34,000	15	—	33.33	20.00	—	6.67	6.67
Springfield	31,500	—	—	—	—	—	—	—
New Bedford	27,000	8	1	50.00	12.50	—	12.50	—
Salem	26,400	4	1	25.00	25.00	—	—	—
Somerville	23,350	5	—	20.00	20.00	—	—	—
Chelsea	20,800	1	1	—	—	—	—	—
Taunton	20,200	6	—	—	—	—	—	—
Holyoke	18,200	7	—	28.57	—	—	—	—
Gloucester	17,100	10	9	20.00	10.00	—	10.00	—
Newton	17,100	6	1	50.00	—	—	33.33	16.67
Haverhill	15,300	5	1	20.00	—	20.00	20.00	—
Newburyport	13,500	6	2	—	—	—	—	—
Pittsfield	12,650	5	—	20.00	—	—	20.00	—
Fitchburg	12,500	—	—	—	—	—	—	—
Milford	9,800	1	—	—	—	—	—	—

Nineteen hundred and thirty-three deaths were reported: principal "zymotic" diseases (small-pox, measles, diphtheria and croup, diarrhœal diseases, whooping-cough, erysipelas, and fevers) 464, consumption 303, diphtheria and croup 167, lung diseases 155, diarrhœal diseases 125, scarlet fever 56, typhoid fever 41, malarial fevers 35, whooping-cough 25, cerebro-spinal meningitis 10, measles seven, erysipelas three, small-pox none. From *scarlet fever*, Baltimore 11, Cincinnati eight, Pittsburgh six, Boston five, Brooklyn, Providence, and Fall River four, Chicago three, New York, Philadelphia, Cleveland, New Bedford, and Holyoke two, St. Louis one. From *malarial fevers*, New York, St. Louis, and New Orleans eight, Brooklyn four, Cincinnati three, Milwaukee two, Chicago and Baltimore one. From *whooping-cough*, Brooklyn seven, New York five, Boston four, Baltimore three, Cleveland and Pittsburgh two, Cincinnati and Charleston one. From *cerebro-spinal meningitis*, New York four, Philadelphia two, Chicago, Boston, Cleveland, and Worcester one. From *measles*, New York four, Baltimore two, Philadelphia one. From *erysipelas*, New York, Philadelphia, and Chicago one each. From *trismus nascentium*, Charleston four, Baltimore three, District of Columbia two. The deaths from diphtheria and croup, typhoid fever, diarrhœal diseases, consumption, and lung diseases were much less than for the previous week, the weather being mild and pleasant; this was marked in 18 of the 21 cities and towns of Massachusetts by a lessened death-rate in lung and diarrhœal diseases.

The deaths from yellow fever in Memphis for the week ending October 25th were 14, cases 31.

For the week ending September 27th, in 149 German cities and towns, with an estimated population of 7,587,950, the death-rate was 25.3 against 26.6 of the previous week: diarrhœal diseases 689, consumption 425, acute diseases of the respiratory organs 223, diphtheria and croup, 192, scarlet fever 83, whooping-cough 65, typhoid fever 63, measles 22, puerperal fever 14, typhus and small-pox none. The death-rates ranged from 12.8 in Bremen to 37.1 in Munich; Dresden 20.8; Berlin 26.4; Leipsic 16.8; Hamburg 26.3; Hanover 18.2; Cologne 33.0; Frankfort 19.4. For the same week, Vienna 20.8; Paris 24.2.

For the week ending October 4th, in the 20 English cities with an estimated population of 7,383,999, the death-rate was 19.9 against 18.8 of the previous week. Two thousand eight hundred and eighteen deaths were reported: diseases of the respiratory organs 201, diarrhœa 152, scarlet fever 146, fever 68, whooping-cough 58, measles 46, diphtheria 16, small-pox (London) four. The death-rates ranged from 15 in Portsmouth to 26.5 in Liverpool; London 19.0; Bristol 19.4; Birmingham 19.1; Manchester 25.5; Leeds 15.7. In Edinburgh 18, Glasgow 16, Dublin 26 (small-pox causing five deaths). In 26 larger Belgian cities and towns the death-rate was 28.9; in 19 smaller, 24.3, — diarrhœa, typhoid fever, whooping-cough, and small-pox prevailing. Brussels 23.0; Antwerp 21.1; Ghent 27.2. In 20 prominent Swiss towns, diarrhœa and typhoid fever prevailed; whooping-cough, scarlet fever, and small-pox were less fatal; diphtheria caused only one death. Geneva 15.0; Zurich 37.4; Basle 15.5.

OFFICIAL LIST OF CHANGES OF STATIONS AND DUTIES OF OFFICERS OF THE MEDICAL DEPARTMENT U. S. ARMY, FROM OCTOBER 18, 1879, TO OCTOBER 24, 1879.

Caldwell, D. G., captain and assistant surgeon. Upon withdrawal of troops from Fort Independence to report to commanding officer Fort Warren, Mass., for duty as post surgeon. S. O. 165, Department of the East, October 20, 1879.

Bartholf, J. H., captain and assistant surgeon. His temporary detail at San Diego Barracks, California, to terminate on 31st inst., and to return to Alcatraz Island, Cal., and resume his duties as post surgeon. S. O. 130, Division of the Pacific and Department of California, October 15, 1879.

LIST OF CHANGES IN THE MEDICAL CORPS OF THE NAVY DURING THE WEEK ENDING OCTOBER 24, 1879.

Passed Assistant Surgeon **E. H. Green** detached from recruiting duty at St. Louis and W. O.

Medical Inspector Somerset Robinson detached from special duty under the National Board of Health, proceed home and W. O.

Medical Director S. T. Coues detached from Naval Hospital, New York, and ordered to special duty attending officers at Boston, Mass.

Medical Inspector D. Bloodgood to the Naval Hospital, New York.

The Gynæcological Society of Boston. — The next regular meeting of the society will be held at the Medical Library Rooms, 19 Boylston Place, on the first Thursday of November, at 10.30 a. m. Paper by Professor Pippingsköld, Helsingfors, Finland especially communicated to the society: Pregnancy and Accouchement shortly after Ovariotomy, in some Subjects in whom the Hydropsical Follicles of the other Ovarium were also Cauterized. The profession are invited. Henry M. Field, M. D., *Secretary.*

Boston Society for Medical Observation. — A regular meeting of the society will be held next Monday evening, November 3d, at eight o'clock, at the Medical Library Building. Reader, Dr. Bradford. Subject, Cases of Tracheotomy. Semi annual election of members. Frederick C. Shattuck, M. D., *Secretary.*

Appointment. — Dr. W. E. Boardman has been appointed assistant physician to the Boston Lying-In Hospital.

Books and Pamphlets Received. — American Health Primers. Winter and its Dangers. By Hamilton Osgood, M. D. Philadelphia: Lindsay and Blakiston. 1879. (From A. Williams & Co.)

Cholera Infantum: Its Causes, Nature, and Treatment. By Charles Edward Banks, M. D. Portland, Me. 1879.

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VOL. CI. — THURSDAY, NOVEMBER 6, 1879. — NO. 19.

LECTURES.

CLINICAL LECTURES ON THE PHYSIOLOGICAL PATHOLOGY OF SYPHILIS.[1]

DELIVERED AT THE COLLEGE OF PHYSICIANS AND SURGEONS, NEW YORK, SESSION OF 1878–79.

BY FESSENDEN N. OTIS, M. D.,
Clinical Professor of Genito-Urinary Diseases, etc.

HAVING thus examined the syphilitic papular eruption through clinical observation, we are now prepared to consider the minute structure of the syphilitic papule as ascertained by scientific investigation; to consider, also, the physiological processes connected with its formation; and especially to trace the influence of the syphilitic disease germ (which we have already followed from the point of inoculation to the remote vascular ramifications of the body) into the syphilitic papule, and thus to aid in affording a rational explanation of this important manifestation of syphilis.

According to the observations of Kohn[2] upon the papular syphilides, "They are formed uniform and dense, limited clearly by infiltrations into the papillæ and corium. *These infiltrations are constituted by an accumulation of cells*, which are piled up in dense and regular layers around the vessels and in the interstices of the connective tissue. The cells are not destined to be permanently organized, as they degenerate and disappear, or assume a dull, granular appearance, undergo fatty degeneration, and are absorbed. Or they may become heaped together in the form of detritus, and form pus. Upon a section of the papule, it is seen that it is limited by two lines, formed of cells, which are accumulated in the corium and on a level with the papillæ. The latter two structures are glued together, while the epidermis is stretched. *The papule is resistant in consequence of the accumulation of the cell elements*, and its color is due to the capillary stasis, to any effusion of the coloring matter, and perhaps to the color

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[1] Continued from page 565.

[2] Caractères cliniques et histologiques des Syphilides. Par Moritz Kohn. Wiener Wochenschrift. Caractères, 1870, No. 55. Archiv générales de Médecine, March, 1872.

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According to the observations of Kohn[2] upon the papular syphilides, "They are formed uniform and dense, limited clearly by infiltrations into the papillæ and corium. *These infiltrations are constituted by an accumulation of cells*, which are piled up in dense and regular layers around the vessels and in the interstices of the connective tissue. The cells are not destined to be permanently organized, as they degenerate and disappear, or assume a dull, granular appearance, undergo fatty degeneration, and are absorbed. Or they may become heaped together in the form of detritus, and form pus. Upon a section of the papule, it is seen that it is limited by two lines, formed of cells, which are accumulated in the corium and on a level with the papillæ. The latter two structures are glued together, while the epidermis is stretched. *The papule is resistant in consequence of the accumulation of the cell elements*, and its color is due to the capillary stasis, to any effusion of the coloring matter, and perhaps to the color of the new formation." These observations, it may be said, are in complete accord with previous though less extensive and minute investigations made by Auspitz,[1] Virchow,[2] Neumann,[3] and Taylor.[4]

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[1] Continued from page 565.

[2] Caractères cliniques et histologiques des Syphilides. Par Moritz Kohn. Wiener Wochenschrift. Caractères, 1870, No. 55. Archiv générales de Médecine, March, 1872.

Bäumler,[5] the recent German authority, speaks of the syphilitic papular eruption as consisting of "*well-marked, circumscribed infiltrations of the papillary body of the cutis.*" Of its intimate structure, he says "The minuter anatomy of the syphilitic papule has been given already in that of the primary affection. Indeed," he continues, "*it is often impossible to distinguish an isolated secondary papule from a commencing primary affection.*"[6] In his description of the microscopical examination of the syphilitic primary affection, or initial lesion, he says it "shows the tissue of the cutis and mucous membrane *to be filled with great numbers of nucleated cells*, which are very closely crowded together between the otherwise normally-appearing connective tissue bundles, and with especial density in the adventitia of the blood-vessels. The capillaries also show numerous cells in their markedly thickened walls."[7] It will thus be seen not only that Bäumler's views coincide completely with those of Beisiadecki, in regard to the histology of the initial lesion of syphilis (fully given on page 216, Lecture I.), but that he finds the syphilitic papule under consideration to be, in its composition, identical with it, namely, *composed wholly of germinal or white blood cells*, the excess presumably due, in great measure, if not entirely, to a proliferation *in loco.*

We have seen that the local proliferation in the initial lesion immediately follows the application of the disease germ of syphilis, and that this result *invariably* follows such application to an abraded surface in a healthy human organism. The conclusion, *that it is in consequence* of the influence communicated by the disease germs to the normal white blood cells (thus setting up this excessive cell proliferation), *is inevitable.* If, now, we can trace the progress of the unhealthy cells *into a papilla cutis*, under circumstances favorable for continued excessive proliferation, and at a time when, through clinical observation, this accumulation is known to occur (inasmuch as it has already been shown that the character of the cell accumulation in the syphilitic papule is identical with that composing the induration of the initial lesion), then I think we may logically claim that the same influence which produced the latter gave rise to the former, and this through processes in accordance with known pathological and physiological laws.

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[1] Auspitz, Ueber die zellen Infiltration der Leiderhaut medizinische Jahrbücher, vol. ii. p. 208, 1864.

[2] Virchow, Pathologie des Tumeurs, Tradebbranc, vol. ii. p. 361, et seq.

[3] Neumann, Lehrbuch der Hautkrankheiten, page 240.

[4] Taylor, Observations on the Papular Syphilides, American Journal, Syph. et Derm., April, 1870, page 108.

[5] Ziemssen's Encyc., vol. iii. p. 137, 1875.

[6] Ibid, page 141.

[7] Ibid, page 110.

"The blood," says Rindfleisch, "is the medium of exchange of the material of the organism. It is the nutritive fluid which conveys to each individual portion of the body the nutritive ingredients necessary for its existence, and instead carries away from the parts the useless and injurious products of the chemical processes associated with nutrition."[1]

Of the early development of the lymphatic system Rindfleisch says,[2] "This is the third and (we say it with emphasis) the last chief constituent of the intermediate nutritive apparatus. Last, not according to importance, but according to time. Only when the development of the embryo ensues at a less rapid rate, when all the other organs have been founded and built up to a certain point, do we remark *lymphatic vessels*; still later, *lymphatic glands*. This doubtless is connected with the physiological significance of the lymphatic vessels *as drains for the surplus nutritive material*. As long as, upon the one side, no nutritive material is superfluous in all that is applied to the new formation, and as long as, upon the other side, the external coverings of the embryo are not too thick to hinder a free afflux toward without, so long we need no lymphatic vessels." And further he says, "We can say also the reverse, that *luxurious new formations, catarrhs and surface secretions of all kinds, must be produced where the lymph conveyance is hindered*; and we will find that this position in pathology is very frequently confirmed."

The blood, or *medium of exchange of the organism*, is, then, carried out by the arteries from the centre of the circulation, to the periphery of the body, and is returned to it by the veins. Intercalated between these two systems of vessels is that other distinct system of vessels called *the lymphatic*, which withdraws from the tissues such nutritive materials as are exuded, in excess, by the arteries into the tissues, and restores them again into the circulation at a given point. According to Willis[3] and also Von Recklinghausen,[4] while they do not distinctly claim with Rindfleisch that the office of the lymphatic system is especially to return the surplus nutritive material to the centre of circulation, yet they agree that there is a current of nutritive fluid which is constantly exuded by the blood capillaries traversing the tissues, and which is returned to the general circulation through the lymphatic vessels; in other words, that there is a tissue current from the blood capillaries always setting towards the lymphatic vessels. Now, *at the nearest points of contact* of these different systems of vessels, at the superficies of the body, we should expect to find collections of surplus nutritive or germinal material, which, after having been exuded by the blood-vessels, were unable, from any cause, to effect an entrance into the *under-drainage* vessels, the *lymphatics*. The relation of these vessels in the cutaneous envelope is described by Teichman.[1] Of the lymphatics he says, "The capillaries of this system lie exactly in the centre of the papilla cutis, whilst the blood-vessels traverse its periphery," winding up, "corkscrew fashion," until they unite at its apex. Rindfleisch says,[2] "All these vessels are strikingly winding. It is particularly striking that the roots of the simple capillary loops wind *corkscrew fashion* around one another, until they unite at the apex of a papilla. The points of *union* or of *curving* are *constantly dilated*. Everything indicates that a certain increase of the pressure and retardation of the circulation must occur in the papillæ of the skin." Wagner says,[3] "The resistance which affects the velocity of the blood stream lies in *friction*. . . . . It is greatest in the arteries, less in the veins, and least in the capillaries." Consequently it is in this juxtaposition of the blood capillaries surrounding the papillæ cutis and the lymph capillaries passing up through their centres, that is to say, in the spaces intervening between these, that we should expect to find germinal or other materials, escaped from the blood capillaries, detained in their transit into the lymphatic capillaries. At this point the force of the circulation has been shown to be at the minimum, the condition most favorable for proliferation. "Contact with the tissue and relative rest of the emigrant cells induces them, as it appears, *first to essay their amœboid mobility*, then to *division*." [4]

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[1] Text-Book of Pathological Histology, Rindfleisch, American edition, page 181, 1872.

[2] Ibid., page 92.

[3] The Sudoriparous and Lymphatic Systems, by Robert Willis, M. D., London, 1867, page 32, et seq.

[4] The Lymphatic System, by Prof. F. Von Recklinghausen; Stricker's Human and Comparative Histology, Sydenham edition, vol. i. p. 297, et seq.

The act of proliferation, when excessive, becomes a morbid process, thus predisposing to the coagulation of the fibrin contained in the tissue fluid.

Carried by the outgoing blood current into the most distant capillary vessels, the syphilitic disease germ has found its way, directly and inevitably, into a papilla cutis. Its exudation into the tissue is favored both by the natural process of exudation and by the amœboid power of the disease germ or morbidly active white blood cell.[5] For in the stasis incident to this locality these cells "*first essay their amœboid mobility, then to division*." These predisposing forces and conditions with the proliferation and accumulation of cell material, and a separation of the fibrin from the lymph, resulting in a distinctly recognized hyperplasia of the papillæ cutis, causes the papules of syphilis to appear as a logical sequence.

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[1] F. Von Recklinghausen on the Lymphatic System; Stricker's Comparative Histology, vol. i. p. 303.

[2] Rindfleisch, page 277.

[3] Wagner's Manual of General Pathology, American edition, page 148, 1876.

[4] Rindfleisch, Pathological Histology, American edition, page 94, § 77.

[5] See Lecture, first page, on the properties and powers of the disease germ.

I think, then, that it may be reasonably claimed that the papule of syphilis, always found in a papilla cutis, always composed of a dense cell infiltration of the papillary body of the cutis, is reasonably accounted for, — is shown, in point of fact, to be the necessity of a *physiological syphilitic infection.*

These papules are seen to vary in size according as the hyperplasic papillæ are more or less abundant, appearing as fine lichenoid elevations in some cases, while in the larger varieties an aggregation of hyperplasic papillæ occurs, and may be consolidated, through the escape of the hyperplasic materials, into the surrounding tissue. We are thus enabled to account for the variations in the size of the papules, and also to explain the apparent development of the papular syphilide in sebaceous follicles and sweat glands, which are said not to be supplied with lymphatic vessels. We are thus led to conclude that when they are apparently engaged in the formation of a syphilitic papule, it is only by their being aggregated into the papules by exudation of the plastic and cell material which has originated in the papillæ cutis.

Again reverting to our patient, we inquire as to the condition of his hair. He replies that he has had no trouble.

I will now present another case, No. VIII., in the same stage of syphilis, drawn this time from our extensive field at Charity Hospital. Here, also, is a marked papular eruption, much more extensive than in the previous patient. I call your attention to him chiefly, however, for the purpose of showing the marked *alopecia* which has occurred, falling of the hair, eyebrows, and a perceptible thinning of the beard. This, you will observe, may occur in one case and not in another. Determination of syphilitic influences to different parts you will find to vary in degree in every case. The influence which is believed to cause loss of hair in this stage of syphilis, is derangement of nutrition in the hair follicle, by a *cellular infiltration of the papillæ surrounding it.* The loss, however, is rarely permanent. Natural or artificially induced fatty degeneration will probably remove the obstructing cell accumulation, when restoration of the hair will take place. Sometimes associated with the alopecia we may find the nails of fingers or toes the subject of trouble from similar cell infiltration into the matrices. The nails in such cases lose their lustre, and become dry and friable, or from denser cell infiltration disturbance of the circulation results in various forms of onychia, known as *syphilitic.* In this case I will ask you to observe in the eruption on his back that pustules and papules surmounted with little scabs (collections of dried sero-purulent material) are quite thickly intermingled with the papules. This will be seen to some extent in almost every case of papular syphilide. In some instances we shall meet with eruptions at this stage of syphilitic disease, which may even present a general pustular character. These variations from the simple papular appearance are easily explained by reference to the minute structure and behavior of the syphilitic papule, as previously given by Kohn. Thus he says, "These cells [which make up the body of the papule] are not destined to become permanently organized, as they degenerate and disappear, or assume a dull granular appearance, undergo fatty degeneration; *or they may become heaped together in the form of detritus and become pus.*" Pustular and vesicular eruptions at this period of syphilitic infection, with our knowledge of the processes through which the papular eruptions are produced, would seem rather to result from lack of formative power in the lymph, and from the inability to form, or the easy liquefaction of the hyperplasic materials evolved or exuded into the papillary layer of the cutis; this occurring probably from a low state of the system induced by general causes, or by some especial dyscrasia not necessarily dependent upon the syphilitic influence. In some rare cases — usually in debilitated youths — superficial ulcerations occur, involving large patches of the papillary layer of the cutis, varying from the size of a quarter dollar to that of one's palm, not unfrequently mistaken for a so-called tertiary manifestation, notwithstanding that they only appear in the usual period of the papular syphilide. With proper attention to the general health, they will always be found amenable to the treatment found most useful in the simple papular eruption.

(*To be concluded.*)

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SIX CASES OF MECHANICAL DYSMENORRHŒA, WITH REMARKS.

BY VIRGIL O. HARDON, M. D.

Case I. M. G., aged thirty-two, married, nullipara. Has suffered from dysmenorrhœa since the third menstrual epoch. Experiences severe bearing-down, expulsive pain, commencing from twelve to twenty-four hours before the flow appears. She is obliged to go to bed and remain two or three days. Large clots are expelled, and their expulsion is accompanied by increase of pain. After menstruation ceases she is perfectly well until the next period. She has been married seven years, but has never become pregnant. Examination showed the body of the uterus to be in its normal position and of normal size. The cervix was long and conoid, with an external os so small as scarcely to admit a Sims's probe. Above the external os the cervical canal was of normal size. All the tissues were free from pathological change. July 28, 1875, five days after the cessation of the menses, the patient was etherized, and the cervix slit up bilaterally as far as the vaginal junction. A small roll of cotton cloth was placed in the cervical canal, and a pad of cotton wet in glycerine placed against the os. These dressings were changed every second day. At the end of twelve days the wound was entirely healed. Menstruation occurred eighteen days after the operation, and was free from clots and almost painless. There has been no recurrence of dysmenorrhœa, and fourteen months later patient became pregnant.

Case II. K. N., aged twenty-eight, married, nullipara. Has suffered from dysmenorrhœa since two months after marriage. Pain commences a few hours before the flow appears, and subsides when the latter is well established. Clots are expelled, accompanied by bearing-down pains. In the intervals of menstruation patient is well, with the exception of slight leucorrhœa. Has been married five years, but has never become pregnant. The womb was in its normal position, and all the pelvic organs were free from pathological change. The cervix was one and five eighths inches in length from the os externum to the vaginal junction. The cervical canal was of normal size. December 30, 1875, six days after the cessation of the menses, patient was etherized, the cervix slit up bilaterally for half an inch from the os, and both lips were amputated at that point. The dressings were the same as in Case I. In thirteen days the wound was entirely healed. Menstruation occurred on the sixteenth day, was absolutely painless, and has continued so ever since. Patient has not become pregnant.

Case III. E. M., aged twenty, single. Has suffered from dysmenorrhœa since puberty. The pain precedes the flow by a few hours, and is of an expulsive character. The blood is expelled in large clots. In the intervals she is perfectly well. The body of the uterus was in its normal position, and all the tissues were free from disease. The cervix, however, was long, and at about half an inch from the os was bent upon itself at an acute angle, so that the os looked directly forward and rested against the anterior vaginal wall. The os was too small to admit a Sims's probe. January 25, 1876, five days after the cessation of the menses, patient was etherized, and an incision made in the median line of the posterior lip, cutting completely through all the tissues to a point just above the angle of flexion. The dressings were the same as in Case I. Patient menstruated, without pain, eighteen days after the operation, and since that time has had no return of the dysmenorrhœa.

Case IV. H. L., aged thirty-four, married, nullipara. Has suffered from dysmenorrhœa since puberty. Severe pain commences before the flow occurs, and is of an expulsive character. There are no clots. In the intervals she is perfectly well. The womb was normal in size and position, and all the tissues were healthy. The os externum was small, requiring some force to introduce a Sims's probe. The stenosis extended as far as the os internum. December 10, 1876, patient was etherized, and the cervix slit up bilaterally as far as the vaginal junction. The incision was continued through the os internum with a narrow bistoury, cutting about one third through the cervical wall, as nearly as could be determined. The same dressings were applied as in Case I. Patient did well until the third day, when she got out of bed, contrary to orders, and stood with bare feet upon a cold, uncarpeted floor. Next day I found her suffering from acute pelvic peritonitis. The dressings were removed at once and not returned. The peritonitis was checked in five days, and patient recovered. She refused to submit to any further treatment, and now remains in the same condition as before the operation.

CASE V. M. H., aged twenty-eight, married, nullipara. Has suffered from dysmenorrhœa since puberty. The pain precedes the flow, and is of an expulsive character. The blood escapes in clots. In the intervals she is well, except that she suffers from indigestion. The uterus was normal in position, and all the tissues were healthy. The cervix was of normal length, but the external os was so small that Sims's probe could not be introduced. The rest of the cervical canal was of normal size. November 7, 1877, five days after the cessation of the menses, patient was etherized, and the cervix slit up as far as the vaginal junction. The dressing of cotton and glycerine was applied, and the wound healed in twelve days. Patient menstruated eighteen days after the operation, with very slight pain. Since that time there has been no return of the dysmenorrhœa. She has not become pregnant.

CASE VI. A. G., aged thirty-four, single. This patient applied to me to obtain relief from an intense itching of the vulva and périnæum, which had troubled her for years, but had increased of late until it was almost unendurable. Examination showed hyperæmia of the parts and marks of the nails from scratching, but no other lesions of the skin, and no parasites to account for the itching. Inquiry elicited the statement that ever since puberty she had suffered intensely from dysmenorrhœa. The pain is of an expulsive character, and is so severe that she is obliged to go to bed and stupefy herself with opiates and gin. The pain precedes the flow by about twenty-four hours. The blood escapes in the form of large clots. In the intervals she is perfectly well, with the exception of the itching. A uterine examination revealed an abnormally small os and a sharp angle in the lower half of the cervix, so that the os pointed directly forward toward the bladder. In other respects the pelvic organs were in normal condition. As the menses were due in a day or two, I introduced a laminaria tent into the cervical canal and left it in for eight hours. At the end of that time the itching had entirely ceased. Menstruation came on next day and proceeded without the usual amount of pain. Recognizing the fact that the relief obtained was only temporary, I proposed an operation. December 26, 1877, five days after the cessation of the menses, patient was etherized, and the posterior lip of the cervix was divided in the median line up to the vaginal junction, and the inner surface of the anterior wall of the cervix at the point of flexion was incised with a bistoury to the depth of about a quarter of an inch. The cotton and glycerine dressing was applied. The wound healed in a fortnight. Since that time the patient has menstruated with only a moderate amount of pain, not sufficient to keep her from her work or require the use of anodynes. The itching did not return.

All the above are typical cases of uncomplicated mechanical dysmenorrhœa. Such cases are the only ones which can be satisfactorily treated by surgical operation. If any complication exists, it is impossible to say how much of the dysmenorrhœa is due to mechanical obstruction and how much to the complicating disease. Consequently, it is impossible to predict a successful result of an operation in such cases. My cases illustrate very well the variety of malformations of the cervix which may produce mechanical obstruction. They may be classed under three heads, namely: (1) stenosis of the cervical canal; (2) flexion of the cervix upon itself; (3) abnormal length of the cervix. Each of these conditions is sometimes found by itself, but more frequently two, and sometimes all three, are present in the same case.

The manner of operating varies with the nature of the malformation: in stenosis of the canal, bilateral incision; in flexion of the cervix upon itself, incisions of such depth and direction as will furnish an unobstructed canal; in abnormal length of the cervix, amputation. These are the forms of treatment which are recommended by Sims,[1] and which have proved successful in my hands. Emmet[2] objects to the operation of bilateral incision on the ground that it leads to the same pernicious results which arise from lateral laceration of the cervix in labor, namely, eversion of the lips of the cervix and ulceration of the everted surfaces. But the cases upon which I have operated have remained under observation for periods varying from six months to three years after the operation, and in no one of them has there appeared at any time a trace of eversion or ulceration. These symptoms occur after laceration in labor from the fact that the womb is then in a state of fatty degeneration, and does not readily take on reparative action. Moreover, the increased weight of the womb at that time presses the cervix down against the posterior wall of the vagina, forces the lips apart, and causes them to roll out as far as the angle of laceration. But in the non-puerperal uterus the conditions are very different, and after incision of the normal cervical tissues the wound heals quickly, the lips retain their natural position, and ulceration is much less likely to occur than if the operation had not been performed.

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[1] Clinical Notes on Uterine Surgery.

[2] American Journal of Obstetrics, November, 1874.

Various metrotomes have been devised to facilitate the performance of the operation, but the best instruments for the purpose are to be found in every physician's pocket case. They consist of a pair of scissors and a bistoury. The best and in fact the only permissible time for the operation is about five days after the cessation of the menses. This will give time for the wound caused by the operation to heal completely before the occurrence of the next menstrual period. In none of these operations will ether be absolutely necessary, as the pain is comparatively slight. But if the patient be nervous and excitable, we may gain a more complete control and operate more easily by the aid of an anæsthetic. The patient should be kept in bed until the wound is entirely healed, which in most cases will be no more than a fortnight. It will not be safe in any case to assure the patient of a cure of sterility as the result of this operation. In the majority of cases such a hope will prove delusive. But we may safely promise that the severe suffering which accompanies each performance of the menstrual function will be completely and permanently cured.

POISONOUS MUSHROOMS.

BY JULIUS A. PALMER, JR.

SINCE the JOURNAL published an account of poisoning by mushrooms, the daily papers have reported three such cases, of which two were fatal. An unknown hand has sent to the writer a copy of an essay by Dr. Isaac Ott, demonstrator of physiology, University of Pennsylvania. It is on the use of atropine as an antidote to muscarine. Many physicians may not have seen this article; therefore we quote from it the following experiment of Dr. Ott, which is very valuable: —

"Frog, sternum removed. 3.55 P. M.: heart-beat thirty-six per minute. 3.58: .0005 grain muscarine subcutaneously. 4.00: heart stopped in diastole; on pricking makes a contraction; the ventricle is distended with blood, bulbous. 4.03: .001 grain atropine subcutaneously. 4.05: it spontaneously began to beat twenty-eight per minute. 4.09: heart-beat thirty-six per minute. It continued beating till next morning, and animal had completely recovered from the paralysis induced by muscarine."

A second experiment upon a toad gave almost identical results. It is remarkable that certain ideas are suggested to the minds of different men at almost exactly the same time. Thus we have contests over the discovery of the anæsthetic properties of ether and the invention of the sewing-machine. A page in my letter-book of April, 1877, gives an account of the effects of the hypodermic use of belladonna, written to me then by a physician of New Jersey, who suggested it simply from watching the symptoms of a patient overcome by toad-stool poison.

In an article from my pen in the *Moniteur scientifique* of Paris, January, 1879, the nature of this poison is considered, as well as its proper treatment, and Dr. Ott's pamphlet and experiments confirm the opinions therein stated. Atropine, subcutaneously, is certainly the specific for poisoning by any mushrooms of the sub-genus *Amanita*. Further, in that article I also suggested the trial of nicotine or tobacco on those who, like myself, do not use the weed. From Dr. T. F. Wood, of North Carolina, I now understand that daturine and hyoscyamine have been successfully administered in such cases. The *Scientific American* of October 11th asserts that another solanaceous plant, a native of Australia, is a valuable remedy, and further quotes Professor Schiff of Italy as an advocate of the treatment by stramonium. The conclusion is therefore unavoidable that, as all these plants belong to the same order, the antidotes to mushroom poisoning must be sought among the night-shades, botanically from the *Solanaceæ*. This concurrence between men who have given the subject attention is quite remarkable, and when the various properties of mushrooms are as well known as the mineral poisons they may, perhaps, be as successfully counteracted. But to this end, it is to be hoped that no more current error may be published with really important matter. With Dr. Ott's experiments he has printed the following conclusions, which, in his own words, may be thus stated: "(1.) The *Agaricus* comprises nearly one thousand varieties, the majority of which are poisonous. (2.) It must not be forgotten that the edible variety under certain unknown conditions may become poisonous. (3.) In some species of *Agaricus* Letellier found a peculiar substance which he called amanitine. . . . In *Agaricus muscarius* there is an alkaloid called muscarine; *A. muscarius* also contains a base called amanitine, a *non-poisonous* body."

Turning now to Webster's dictionary, we read: "Amanitine, the poisonous principle of some fungi." Again, we quote Descourtilz:[1] "This deleterious principle, according to Letellier, should be called amanitine, because we meet with it more particularly in the genus of the *Amanitæ*." Boudier, in the Orfila prize essay, Paris, 1864, says, "The amanitine of Dr. Letellier must be considered the poisonous principle of the false orange mushroom;" generically *A. amanita muscarius*. At this date to call any non-poisonous base in this family amanitine, a name for fifty years rightly applied to *the* poisonous principle, is only adding to the almost hopeless confusion already existing in this branch of science.

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[1] Des Champignons, Paris, 1829.

The second point is not a new one, yet actual daily experiment causes me to more than doubt its truth. The theory may be thus briefly stated: the poisonous and non-poisonous fungi, under chemical tests, show nearly identical constituents; for this and other reasons it has been said that mushrooms depend for their noxious or innoxious qualities on the varying quantity of alkali in their composition.[1] Therefore, could the edible variety secrete sufficient alkaline matter, we should find it poisonous, or fungi might be combined so as to destroy the harmony that made them harmless, and thus become dangerous.

Now, I have carefully tested these theories for five successive seasons: have eaten every variety of the edible mushroom from widely separated localities and under diverse conditions of growth; have propagated them, and mixed the spawn so as to produce new forms of the same plant. Then, to test the question further, I have also made many mixed stews of little-known and unrelated species of fungi (including what is called the edible variety), and, having first found each safe isolated, have eaten them in combination without harm. By these experiments have I not proved, on my own person, that the same laws obtain with fungi as govern all other articles of diet? You cannot make a noxious dish out of innoxious elements. You cannot pluck food and poison from the same plant. There are not a thousand *Agaricini*, but only seven hundred. There are about a thousand non-microscopic fungi. Of these the majority are non-esculent, from being tough, coriaceous, woody, bitter, slimy, or repellent. The next numerous division is that of the esculents, while there are no authentic cases of fatal poisoning save from *four* varieties of the *Amanitæ.*

The curse of the science of mycology has been tradition; men have written on it without personal acquaintance with a single toad-stool. Leading magazines in this country have published articles condensed from mycological books by professional writers, who were ignorant of their subject. Into these the authors have woven signs and tests which are utterly absurd, and we regret to see anything published which shall increase this confusion. The great need of the science is study, experiment, and analysis of the properties and nature of non-microscopic fungi, as esculents, poisons, or medicines. It must be systematic, and, above all, original, to be of any value. With this limitation there is no field in nature that offers such opportunity for new and important discoveries.

[1] Berkeley's Fungology, page 61.

RECENT PROGRESS IN THE TREATMENT OF MENTAL DISEASES.[1]

BY THEODORE W. FISHER, M. D. HARV.

Use of Sedatives. — Dr. J. A. Campbell, of the Garland Asylum, Carlisle, writes[2] concerning the treatment of excitement by sedatives or otherwise. He has seen instances of an error not unknown to us, chargeable usually to physicians in general practice. The mistake is occasionally made of trying to quell an outbreak of insane excitement by the use of large quantities of ether, chloral, bromide of potassium, opium, or other narcotics, given day and night, without much pains to enforce proper nourishment. This management, if pushed to extremes, may lead to dementia or death by exhaustion.

Dr. Campbell says that if sleep can be produced at night the patient does better without sedatives by day; chloral, though an efficient sleep producer, is dangerous from its depressant action on the heart, and should not be used in frequent or repeated doses by day. In the excitement of general paralysis sedatives should not be given which, like the bromides, impair still further the powers of locomotion and deglutition. In the few cases where he has been obliged to resort to continuous sedation he has found the bromides alone almost useless, but in combination with cannabis indica, hyoscyamus, valerian, or even opium, the bromide acts as a drag, prolonging the sedative effect. Frequent feeding by day and night, with occasional stimulation, he has found to produce quiet, and not only to prevent fatal exhaustion, but also to decrease the degree of dementia in cases that do not recover. The noisy condition of some foreign asylums, and formerly of English asylums, he attributes to underfeeding. Much exercise, either active or passive, and living much in the open air conduces to quiet. The shower bath is useful in certain cases; also blistering over the region of the ovaries in excitement due to ovarian irritation.

Drugs in Insanity. — Dr. George H. Savage,[3] of the Bethlehem Asylum, gives the results of his experience in the treatment of insanity, more especially in the use of drugs. Early removal from home he considers the first step in almost all cases. He finds few cases of sthenic insanity. Stimulants should therefore be used instead of depressants. Food well selected and administered is at the basis of treatment. He thinks well of the shower-bath in cases due to self-abuse, and of the wet pack, especially in the mania of hystero-epilepsy. He uses no form of opium but morphine. Melancholics seem to do well under its use, but the cure takes so long that time may be the curative agent after all. It is most beneficial in climacteric and senile cases, and most hurtful in mania. He thinks chloral has, all things considered, done as much harm as good. He finds it useful in epileptic mania, in cases due to excess of alcohol, and in puerperal cases. In wildly maniacal and erotic patients he gives it in from ten to thirty grain doses rubbed up with an equal quantity of camphor in syrup. He found alarming symptoms to follow, however, in one case, after twenty grains of the mixture had been taken.

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[1] Concluded from page 624.

[2] Lancet, August 2 and 9, 1879.

[3] Guy's Hospital Reports, 1878.

Succus conii and hyoscyamine he uses sparingly in noisy and destructive cases. He has almost discarded bromide of potassium except, presumably, for epilepsy. Prefers saline purgatives to all others, and hunyadi janos to all other waters. Next to quiet and absence from home, stimulants take rank. He finds koumiss of use in hysteric dyspepsia and anorexia in doses of a pint daily, as it is easily digested and prevents waste. As emmenagogues he uses Griffith's mixture and compound decoction of aloes or tincture of black hellebore. He thinks amenorrhœa is seldom a cause of insanity in otherwise healthy subjects. It is often due to the same cause as its accompanying depression. He uses the above remedies if the menses do not reappear after the general health has been restored by iron or other tonic treatment. Finds physostigma of some use in the congestive stage of general paralysis, inducing remissions of the prominent symptoms. Does not have a high opinion of electricity, though he has used it rather too seldom to speak with authority. Has noticed recoveries after the occurrence of some local inflammation so often as to suggest the propriety of more common use of counter-irritation. In gouty cases, cure the gout, and you may cure the insanity. Generally speaking, treat causes and conditions. Moral treatment must, however, he thinks, be for a long time, and perhaps forever, the chief aim. With correct management from the start, nearly all cases of insanity unattended by paralysis or physical decay may be cured.

Recoveries from Mental Disease. — Dr. Ray,[1] in a recent paper, controverts the position taken by Dr. Earle in regard to the diminished curability of insanity as shown by American hospital reports for the last thirty years. Dr. Earle attributes the decrease in reported recoveries to varying temperaments in the reporters, and to the custom of reporting several recoveries in recurrent cases. Dr. Bell, for instance, said, in 1840, that the records of the McLean Asylum justified him in stating that "all cases certainly recent recover under a fair trial." But Dr. Ray shows that Dr. Bell himself, in after years, reported a constantly diminishing number of recoveries, owing to the fact that the asylum came more and more into use for patients with incurable or fatal types of insanity. General paralysis and Bell's disease, or typhomania, were unknown thirty years ago. Dr. Ray says, "In order to approach a correct estimate of the curability of insanity two requisites are still needed, namely, that every case should have a fair trial, and that the subsequent history of every case discharged should be ascertained." He adds that those qualities of temperament which lead men unduly to magnify their achievements are as common at one time as at another; that the practice of reporting cases instead of persons has not been confined to any particular period; that cases marked by high excitement and more curable entered hospitals in larger proportion formerly than now; the conservative powers of the constitution have to some extent depreciated, and cerebral affections in which insanity is only an incident have steadily increased, thus diminishing the proportion of recoveries.

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[1] Transactions College of Physicians, Philadelphia, 1879, third series, vol. x.

Partial Insanity. — Dr. T. L. Wright, Bellefontaine, Ohio, in a recent monograph, discusses some points connected with the responsibility of the partially insane. He objects to the somewhat prevalent idea that the will is at fault in partial insanity. He thinks the will is subverted or overwhelmed by the insane condition of the intellect or the emotions; that it usually acts in a sound manner, although putting in force an insane idea or feeling. It may share, however, in general mental enfeeblement. The theory that partial insanity is the result of disease of a definite part of the brain is, he thinks, untenable, and he denies that the partially insane mind is wholly responsible outside the circle of its disordered ideas. He concludes that the partially insane are always responsible, but not in the same degree or manner as the sane. It follows that it is the duty of the State to provide a place of confinement for the criminally insane, different both from jails or penitentiaries and from asylums for the insane.

The Criminal Insane. — Dr. Walter Channing, M. D., in a paper read at the Conference of Charities in Chicago, in June, considers the kind of buildings and management required by the criminal insane. After describing the peculiarities of this class, he says it is evident that criminals differ from all other classes; that insanity occurring in prison is of a peculiar type; and that the convicted insane should never, and the unconvicted criminal insane seldom, be treated in asylums for the insane. He gives a table furnished by Mr. F. B. Sanborn, inspector of state charities, which shows that there are at present in the hospitals of this State eighty-four insane criminals. He states the familiar fact that from defective knowledge of insanity the insane are often sent to prison. He advocates the building of a hospital to contain two hundred patients.

Insane Drunkards. — Your reporter read a paper at the last annual meeting of the Massachusetts Medical Society, calling attention to the defective state of the laws in relation to habitual and insane drunkards. The existence of a disease known as dipsomania was shown to be recognized by all the best authorities in lunacy. The dangers attending transient mania from drink were pointed out, and the automatic and irresponsible nature of the violent acts of many drunkards is insisted on. The duty of the State to provide better safeguards for society and the families of insane drunkards, by authorizing their commitment to institutions especially adapted to their management and cure, was strongly urged.

Recent Laws. — An act of the last legislature of Massachusetts provides[1] that justices of the supreme, superior, municipal, police, or district court shall have the same power in the commitment of lunatics as judges of probate; that no insane person shall be detained in any public or private asylum without order of court, and that the judge shall see and examine the person alleged to be insane, or state in his final order the reason of non-compliance; that no person shall be committed unless in addition to oral testimony there shall have been filed a certificate of insanity signed by two physicians, graduates of some legally organized college, who shall have practiced three years in the State, and who are not connected with any hospital for the insane, and who shall have examined the patient within five days, and shall specify the facts on which their opinion is based; that any counselor of law, regularly retained for or by the patient, shall be admitted to any hospital to visit his client, on consent of the superintendent, or by order of any justice above named in writing.

Habitual Drunkard's Bill. — This bill, as finally passed by the English Parliament, is of a permissive and experimental character, to continue in force ten years. The term "habitual drunkard" is interpreted to include those persons who by reason of habitual intemperance are at times dangerous, or are incapable of managing their affairs, and to exclude those cases which more properly come under the operation of the lunacy laws. Retreats for the cure or control of habitual drunkards may be licensed, and one of the licensees must be the physician in charge. The drunkard must himself make application for his own commitment, the case being heard before two justices, and the declaration of two persons that he is an habitual drunkard must be filed. The term of commitment shall not exceed one year. Suitable cases may be discharged before the expiration of this term on application of the licensee or by order of the home secretary. There are clauses providing for punishments by fine or light imprisonment for infractions of the rules of a retreat, and for the return of fugitives. It is the intention of the society, of which Lord Shaftesbury is president, which has had in hand the promotion of this legislation to encourage the opening of retreats for all classes and in all parts of the kingdom. It is hoped to make the bill to some extent compulsory by forcing incorrigible drunkards to accept its provisions as an alternative for criminal prosecution when the laws have been infringed upon by acts of violence or by their habits as common drunkards.

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[1] General Laws and Resolves, 1879, chap. 195.

PROCEEDINGS OF THE SUFFOLK DISTRICT MEDICAL SOCIETY.

T. M. ROTCH, M. D., SECRETARY.

MAY 31, 1879. Fifty members were present, DR. C. ELLIS in the chair.

Hip Disease. — DR. C. P. PUTNAM showed twelve patients, from two to seventeen years of age, under treatment in various stages of hip disease. They were intended to illustrate what is sometimes called in England the "American method;" but many methods are practiced in America, and this may fairly be called the Taylor method, since it has been developed and perfected mainly by Dr. Charles F. Taylor, of New York. The characteristic feature of it is that in all stages of the disease, except when in a state of acute inflammation, the joint is not only allowed, but is encouraged, to move, while it is at the same time protected against injury, both from the weight of the body and from the muscles of the thigh, by apparatus suited to the exact condition of each case.

The muscles of the thigh are by means of extension brought into such a state that they will not act spasmodically and press the head of the femur into the acetabulum. As soon as the extension is effective and well borne, the patient is allowed to walk, the weight of the body being taken on a perineal, or more exactly speaking an ischiatic, strap supported on a splint longer than the leg, which therefore, as it were, simply swings in the air. This splint is kept on as long as extension is necessary. After a time, however, the disease improves so much that extension may be abandoned, though the weight of the body must still be kept off the hip, while motion of the hip is more than ever to be encouraged. The best instrument to use at this stage is one which has a knee-joint, allowing the patient to bend the knee in walking and sitting, yet so constructed that when put in the upright position it acts like a straight splint. The weight of the body is never allowed to come on the hip until it has been for many months on probation in this apparatus, which permits the patient to walk and run as comfortably as without any apparatus at all.

This method of treatment differs essentially from those by extension and rest in bed and by fixation alone. By means of it, if thoroughly carried out, almost every case taken at an early stage and a large majority of those taken at a late stage may be cured, with good motion.

The first case, Lizzie C., three years and eight months old, having had the disease twenty-three months and been under treatment fourteen months, was shown to illustrate want of success from neglect on the part of the parents and the necessity for constant supervision. A simple splint had so thoroughly removed the pain that the parents could not be induced to attend to the treatment properly. Though the child was perfectly comfortable and her general health good, nothing had really been gained, inasmuch as the muscles of the thigh were still irritable.

The other cases were doing well, as follows: —

Dennis D., five years old; first symptoms fourteen months ago. Under treatment two months. Pain relieved. Slight motion.

James M., eight years old; first symptoms eighteen months ago. Under treatment twelve months. Abscess still discharging. Walks with fair motion.

Sarah H., twelve years old; first symptoms twenty-six months ago. Under treatment fourteen months. Walking with jointed splint. Good motion.

Mary W., two years and four months old; first symptoms seventeen months ago. Under treatment sixteen months. Beginning to walk. Slight motion.

Mary M., three years and six months old; first symptoms twenty-two months ago. Under treatment seventeen months. Excellent motion. Walking freely.

Alice H., fourteen years old; first symptoms thirty-six months ago. Under treatment seventeen and a half months. Walking freely. Limited but free motion.

Charles M., five years old; first symptoms twenty-six months ago. Under treatment seventeen months. One abscess discharging and one threatening. Walks freely, with limited motion.

Mary H., eleven years and six months old; first symptoms thirty-seven months ago. Under treatment eighteen months. Walks freely with jointed splint. Good motion.

Katy S., seventeen years old; first symptoms sixty months ago. Under treatment nineteen months. Walks freely with jointed splint. Good motion.

Bridget C., five years and three months old; first symptoms thirty-six months ago. Under treatment twenty months. Walks and jumps rope with straight splint. Good motion.

Thomas K., five years old; first symptoms thirty-one months ago. Under treatment nineteen months. Walks and plays freely, with moderate amount of motion.

Anatomy of the Skin. — DR. J. C. WARREN exhibited some diagrams and microscopic sections showing the relation of the fat canals to the hair follicles, and made some extended remarks, which appeared in print a year ago. — In connection with Dr. Warren's remarks regarding the blood-vessels of the skin, DR. C. P. PUTNAM asked whether the vessels from which a nævus develops were those of the perivascular lymphatic spaces. — DR. WARREN answered that they were not, but that they came from vessels beneath the skin. — DR. J. C. WHITE asked how often these canals were found. — DR. WARREN answered, quite frequently on the breast, but not on the face or legs, and that they are not always seen in thin people. He also stated that he used the term "canal" merely to indicate clefts, and that the function of these canals appeared to be connected with the erector pili muscle. — DR. WHITE stated that such indications are rarely found on examination of a large number of lanugo hairs, and that hence they are not essential to the functions of the erector pili muscle. — DR. WARREN replied that it was very difficult to make the sections so as to show the canals; that it could not be done with the microtome, but that by making the sections with the "free hand," following the proper direction with the eye, the canals could be demonstrated.

PROCEEDINGS OF THE BOSTON SOCIETY FOR MEDICAL OBSERVATION.

FRED. C. SHATTUCK, M. D., SECRETARY.

APRIL 7, 1879. *Sarcoma of the Lumbar Vertebræ.* — DR. EDES reported the case. J. M., a carpenter, fifty-five, entered the City Hospital March 21, 1879. His health had always been good till the previous June, when he began to suffer from pain in the anterior aspect of both legs, the pain being more severe at night. Has been losing flesh since the above date, and for three months the pain has prevented him from walking; cannot now turn over in bed. No cough, expectoration, hæmoptysis, or dyspnœa of consequence. *Urine*, specific gravity 1022, a trace of albumen. Under microscope a few hyaline casts, one waxy cast, oxalate of lime crystals. No decided paralysis, but general weakness. No obstruction to passive motion at hips. No tumor to be felt in abdomen. Complained of piles, and gave a history of a discharge of pus and blood per anum some months ago. On examination some small hæmorrhoids are found, and a small ulcer just within the sphincter. Within the rectum a soft tumor can be felt to the right side. A diagnosis was not reached, and the patient died April 5th.

An autopsy was made by Dr. Cutler, who showed the specimens and reported as follows: On opening the abdomen and removing the viscera, the body of the second lumbar vertebra was found to be replaced by a new growth projecting but little anteriorly, though rather more to the right than the left of the median line. On section it was gray in color, soft, rich in blood-vessels, and contained one or two hæmorrhages. The intervertebral cartilages above and below were extensively implanted in the new growth, as were also the lower two thirds of the body of the first and the upper two thirds of that of the third vertebra. The transverse processes and laminæ of the second were but slightly diseased. In the right psoas muscle was a growth the size of the fist, implicating the muscle and infiltrating its fibrils. The microscope showed the disease to be round-celled sarcoma with numerous giant cells. The right lobe of the liver contained several small secondary nodules.

DR. CUTLER also showed a specimen of superficial caries of the spine. There was a sequestrum the size of the last joint of the little finger, surrounded by carious bone, in the lower surface of the body of the fourth dorsal vertebra, the intervertebral cartilage below it being softened and ulcerated. The lower portion of the body of the first dorsal, and the whole of that of the second, third, and the fifth, to the eighth inclusive, were carious only superficially, less than a line in depth, and on section were found to be otherwise healthy. The ribs joining these vertebræ were superficially denuded, but not roughened. The intervertebral cartilages of the other vertebræ were but slightly diseased on their exposed surface. Perforation of the pus had taken place into the right pleural cavity. The other organs were not remarkable.

DR. PORTER showed ten calculi which he had extracted from the bladder of a boy of twelve at the Massachusetts Hospital. Trifling symptoms had been present for two years. The operation was the ordinary lateral one. Four calculi were removed from the bladder, the largest weighing four hundred and forty-four grains, the next in size one hundred and sixty grains. From a pouch below the bladder, opened by scratching through the mucous membrane with the nail, six smaller calculi were removed, weighing all together seven hundred and eighty grains. After fourteen days the water began to come through the urethra, and after twenty days came exclusively so.

Urethral Calculus. — DR. J. C. WARREN showed a urethral calculus which had existed for seven years, and was found in a pouch in the urethra at the peno-scrotal angle. The patient had used a small silver catheter during the time, and had not suffered much inconvenience. The attention of the society was called to a depression on one side of the stone, which was evidently made by the beak of the catheter in passing.

Operation on the Inverted Head. — DR. WARREN then reported a case of tumor of the hard palate about the size of a Messina orange in which he had employed this method. The patient was laid on her back on the table after etherization, and then drawn over the end so that the head hung vertically downward. The operator sat at the end of the table with the patient's head resting on his knees. Not only did no blood flow into the trachea, but mucus flowed freely into the mouth, and did not impede respiration. In operation for cleft palate a modified form of this method has been in use for many years at the Massachusetts Hospital. The patient was placed on the side, and the shoulders were so raised by pillows that the head hung obliquely downward. — In answer to a question from Dr. Fisher, Dr. Warren said that the method was first invented by Rose, and a mention of it could be found in his Report on Surgery in the JOURNAL for October 24, 1878. The tumor was a beautiful specimen of cylindroma.

DR. F. C. SHATTUCK reported a case of Hyduria and Urticaria complicating Scarlet Fever. Reserved for publication.

MAY 5, 1879. *Interstitial Nephritis.* — DR. STEVENS showed a very small kidney from a hard-drinking man of twenty-nine, who, seven years ago, had syphilis, but has two healthy children, and has apparently not infected his wife. Dr. Stevens first saw the man about the end of February last for a cut of the lip, which was bleeding profusely. The patient had fainted, and was pulseless. He recovered slowly from this, and went to Tennessee, thinking that rest and a change would do him good. A week ago he returned, with decided symptoms, which led to an examination of his urine. Dr. Wood examined it, and reported the diagnosis of interstitial nephritis. The man went on from bad to worse, and died comatose, a peculiar feature of the case being that there was no suppression or even diminution in the quantity of the urine until three hours before death. The autopsy, made by Dr. Cutler, confirmed the diagnosis.

JUNE 16, 1879. *Club-Foot cured by Mechanical Treatment alone.* — DR. BRADFORD showed a child, four years of age, the subject of congenital club-foot. Tenotomy had been done in infancy, but the mechanical after-treatment was neglected, and at the time of admission to the Children's Hospital, one year ago, the feet were much deformed and the muscles greatly atrophied.

The deformity resisted all attempts at manipulation. The tendines Achillis and those of the tibial muscles were cut under ether, and Scarpa's shoe was applied, but the deformity was not in the least diminished. Mr. Barwell's method of elastic extension by rubber muscles was then tried, a plaster bandage applied, and subsequently *brisement forcé*, as recommended by Dr. Benjamin Lee, was practiced; but little or no progress resulted from the use of either of these methods. Finally, an apparatus similar in the main to that used by Dr. C. F. Taylor, of New York, was applied. The advantages of this apparatus are that it is cheap, light, and allows the child to walk about, being covered by an ordinary shoe during treatment. Under its use the foot had been brought from a position in which the child walked only upon the outer surface of the foot to one enabling him to walk upon the sole, even when the apparatus is not adjusted. This had been brought about by eight months' mechanical treatment, but for a permanent cure the shoe must be worn for two years. The case illustrates well the fact that gradual and constant gentle traction will sometimes effect what forcible means fail in effecting. — DR. JUDSON, of New York, who was present, being requested to say a few words, remarked that this case shows, as far as one severe case can show, that club-foot can be treated without tenotomy. He was glad to hear Dr. Bradford state frankly that two years are necessary for permanent cure. In reply to a question he stated that he did not feel prepared to say how large a proportion of cases can be successfully treated thus, but it is probably larger than is generally supposed.

Tubercular Meningitis. — DR. AYER then read the regular paper for the evening, entitled Cases of Tubercular Meningitis. — DR. C. P. PUTNAM said that the extreme difficulty often met with in making an early diagnosis, spoken of by Dr. Ayer, reminded him of a case seen by Dr. J. P. Oliver and himself last summer. The symptoms pointed rather to typhoid fever; there was no vomiting, constipation, irregularity of the pulse, or strabismus. The only suspicious symptom was the want of regularity in the rise and fall of the temperature. The child was sick about three weeks, and toward the end the nature of the affection became clear. — DR. MINOT spoke of the great importance of attention to the nourishment of children with hereditary tendencies. He was once called to see the child of a physician who was at the time dying of consumption. The child was nine months old, and had been brought up on the bottle. The symptoms of tubercular meningitis were well marked, and the child died a few days before its father.

Embolism of the Pulmonary Artery. — Dr. Minot introduced DR. GOSS, who had attended the patient during her convalescence after labor, and reported the case: A lady of nervous temperament, aged twenty-nine, was confined for the third time May 20, 1879, and delivered by Dr. Minot of twins, without instruments, which had been required in both of her previous confinements the labors having been tedious. Profuse hæmorrhage followed, but ceased in fifteen minutes. Pulse 120. After-pains severe. The patient was very œdematous, the urine abundant and albuminous. In the course of a few days the œdema disappeared, and on June 2d the urine was free from albumen. The lochia were abundant, and at times highly offensive; the uterus was slow in contracting, and several hæmorrhages occurred, but under tonic treatment the patient gained in color. She kept her bed till the twentieth day after confinement, and was then only moved to a lounge. Four days later, June 13th, at 3.15 P. M., on returning to the lounge after having sat on the vessel to urinate, she uttered a loud cry, and fell back with slightly convulsive action. The loss of consciousness, if complete, was but momentary. When seen at 3.30 P. M. she was faint, and complained of pain in the cardiac region and inability to breathe. Pulse 144, feeble; respiration 36. Extremities cold; sounds of heart feeble, but without murmur. Respiratory sounds distinct, and without râle; no cough. Brandy and carbonate of ammonia were given at frequent intervals, sinapisms applied to the chest, and heat to the extremities. The pain in the cardiac region was somewhat relieved, but the faintness and dyspnœa continued. She lay with the head low, any attempt to raise it increasing the faintness. At 7.45 P. M. a large amount of sour, undigested food was vomited, after which nausea persisted, and vomiting occurred several times till shortly before death. At nine P. M. the pulse was 160, and acute pain was complained of over the lower lobe of the right lung posteriorly. No dullness on percussion or abnormal respiratory sounds, and heart sounds as before. Cyanosis was soon after noted, increased, and twenty-six hours after the seizure she died, the mind remaining clear to the end, and the last two hours of life being free from pain.

An autopsy was made twenty-three hours after death by DR. CUTLER, who showed the specimen, and reported as follows: Emboli were found in each lung. That on the right was situated at the primary division of the pulmonary artery, tightly filled the vessel, was dense, and yellowish-red in color. On the left the emboli were in the arteries of the second division, and of the same character as on the other side. The source of the emboli was a thrombosis of the ovarian vein, plexus pampiniformis, and uterine sinuses on the right side. Involution of the uterus had not progressed as far as might have been expected in the fourth week. The right heart was distended by a dark, moderately firm coagulum; the left heart was contracted. The cortical portion of the kidneys was very cloudy and a little swollen, and casts were found in some of the tubules. The embolism of the left lung was evidently a slower and more chronic process, while that in the right was the cause of the alarming symptoms. — DR. MINOT called attention to the remarkable relation between the symptoms and the pathological condition. Everything pointed to an absence of blood in the head; the patient, for instance, could not sit or be propped up. The very slight exertion which seems to suffice to detach an embolus is also remarkable, and Dr. Minot has seen other cases where getting out of bed or some such simple movement was followed by the fatal accident. Special care was exercised in this case for a special reason, and the patient had only once before risen for micturition, having always used the bed-pan. Dr. Minot also said that it would be interesting to know whether there was any connection between the albuminuria and the immediate cause of death, whereupon DR. CUTLER remarked that the uterus does not generally contract well in cases of albuminuria. Dr. Cutler then briefly alluded to several similar cases which had come under his observation. A man was admitted to the City Hospital with fractured femur, and a plaster bandage applied. Not long after he sank back, and died suddenly after using the bed-pan; the source of the embolus was in the femoral vein. Another case was that of a young lady at the end of the third week of typhoid fever, who was feeling so well that she was receiving friends; the source of the embolus was in the auricular appendage. A third case was one of pneumonia, in which the source of the embolus could not be found.

Cancer of the Uterus. — DR. BAKER reported the case, and introduced Dr. W. F. WHITNEY, who demonstrated the specimen. The case was seen in consultation with Dr. A. C. Webber, of Cambridge, May 29, 1879. A single lady of thirty-five had enjoyed fair health, menstruation having always been free and regular till last January, when it began to be excessive, continuing profuse for two weeks. May 16th, several days before menstruation was due, Dr. Webber examined her under ether, and found the uterus enlarged to the size of an orange, and, so far as could be determined without the aid of the sound or tents, freely movable. It was his opinion that the enlargement was due to a fibroid tumor. The night following the examination the patient had a slight chill, the temperature rising to 101° F., but gradually falling again to the normal point. Menstruation did not appear when due, but was delayed a week, and when it did appear all the symptoms were exaggerated. The temperature rose to 102° F., and the pulse to 120. At the consultation she was found sleeping, after several hours of severe suffering. The abdomen was distended and tender, and there was every evidence of pelvic peritonitis in the absence of a vaginal examination, which was thought, under the circumstances, inexpedient. Two days later she was seen again, but was no better, though the pain was somewhat controlled by morphia. A digital examination showed the uterus to be immovable, and the cellular tissue about the cervix quite hard. The next day the patient died.

On autopsy the uterus was found to be nearly twice the normal size. The vaginal portion of the cervix had almost entirely disappeared, as much of it as was left being covered by a foul-smelling ulceration. On section the lower part of the uterine wall presented an ill-defined, yellowish cone, with its base at the cervix and its apex near the middle of the body of the uterus. Microscopic examination showed the growth to be a round-celled sarcoma. Slight secondary deposits were found in the left ovary and in some of the lymphatic glands on the left of the lumbar vertebræ.

The case is specially interesting from the absence of the usual symptoms of cancer. If no autopsy had been made the case would have been considered as one of fibroid tumor, with pelvic cellulitis and peritonitis resulting from the examination.

SURGICAL DIAGNOSIS.[1]

MR. HEATH, who has been a teacher of surgery for many years in University College, London, has prepared a compact little book to assist the student in getting at the salient points of a case and making a diagnosis in the absence of the teacher. The complete helplessness of a beginner under such circumstances is only too familiar to clinical instructors, and stern experience has evidently impelled the energetic professor to prepare an elementary work of the kind. The book opens with careful directions in the art of case-taking. The various affections are then described in the order of their anatomical situation, beginning, of course, with the head. Where a differential diagnosis is needed the various diseases are arranged in parallel columns. One great merit of this book is that it is short; too much has not been attempted, and the student is not bewildered and discouraged by the wonderful possibilities of each group of symptoms. The book is also of convenient size to carry in one's pocket, and should prove as valuable a companion to one who "makes the visit" as the time-honored Murray has in the hands of the English traveler.

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[1] *A Guide to Surgical Diagnosis.* By CHRISTOPHER HEATH, F. R. C. S. Philadelphia: Lindsay and Blakiston. 1879.

POCKET LEXICON.[1]

This compact little dictionary is a valuable addition to a student's library, for it treats of a subject with which he is rarely familiar. Every one who is at all particular about the pronunciation of medical terms will sympathize with any effort to protect their ears from the daily inflictions to which they are subjected. Few students will undertake to purchase one of the large medical dictionaries, but a trifling investment will procure for him a list of all the important words he is likely to come in contact with. The proper pronunciation is given by means of a phonetic alphabet, of which the author is the inventor. We hasten to say that this need not frighten one from the purchase, for it is easily understood. For instance, that unhappy word *abdomen*, which so many old gentlemen love to pronounce ab′domen, is thus described: ab-do′-men. If the student *have* a pocket still unoccupied by a "manual," this is an excellent candidate for it.

DISEASES OF THE INTESTINES AND PERITONÆUM.[1]

This volume of two hundred and forty odd pages is issued in Wood's Library of Standard Medical Authors. It consists of a collection of papers by several different authors, most of whose names are known in this country as well as in England.

The diseases of the intestines and peritonæum are treated of under nineteen heads. Of these papers the longest and most complete, perhaps, are on the various forms of obstruction of the bowels, diseases of the rectum and anus, and peritonitis. There is also a concise and sufficiently full paper on Intestinal Worms. Colitis is dismissed by Dr. Begbie, in half a page, with the final remark "that great difficulty at present exists in the way of correctly distinguishing between the different forms — if there really be different forms — of inflammatory disease affecting the colon," and he considers renewed patholog-

[1] *Student's Pocket Medical Lexicon, giving the Correct Pronunciation and Definition of all Words and Terms in General Use in Medicine and the Collateral Sciences, etc.* By Elias Longley. Philadelphia: Lindsay and Blakiston. 1879.

[2] *Diseases of the Intestines and Peritonæum.* By John Syer Bristowe, M. D., J. R. Wardwell, M. D., J. W. Begbie, M. D., L. O. Habershon, M. D., T. B. Curling, F. R. S., and W. H. Ransom, M. D. New York: William Wood & Co. 1879.

ical investigations and examinations requisite in order to arrive at any satisfactory conclusions on the subject. Dysentery is treated of by the same author in another article.

The writers are all Englishmen, and a large proportion of the articles are from the pen of Dr. Bristowe. The practitioner will find this a convenient and useful book.

DISEASES OF THE BLADDER AND URETHRA IN WOMEN.[1]

The subject treated of in this volume is one whose importance has long been recognized by American gynæcologists, as well as the want of some work upon it in their literature. The high reputation enjoyed by the author gives a prestige to this book which few others could receive. It consists of eight lectures, which treat severally of the anatomy, development, and malformations of the bladder and urethra; functional diseases of the bladder; organic diseases of the same; cystitis; treatment of cystitis; neoplasms, carcinoma of bladder, and foreign bodies in the same; diseases of the urethra; and dilatations and dislocations of the urethra.

Under the heads of Retrocession and Forward Transposition of the uterus, the author describes two malpositions of that organ not usually referred to, but of great importance in their effect on the bladder. In these malpositions the uterus is carried bodily backward or forward, and fixed there without changing its axis in relation to the plane of the superior pelvic strait.

For examination of the urethra and bladder, the author describes his endoscope, which appears to be more simple and efficient than any we have seen. The chapters on cystitis are exceedingly valuable, and so enhance the worth of the book that every practitioner should own it in order that, if for no other reason, he may be able to refer to them. We are, however, a little surprised that the author, when speaking of the treatment of cystitis by cystotomy, makes no mention of the method of keeping the fistula open, which we have seen Dr. Emmet practice, and to which from our own experience we have learned to give the preference, namely, stitching the edge of the vaginal and vesical membranes together around the incision previously made through the vaginal septum.

The author's remarks on the functions of the bladder are particularly interesting, and if we remember that the result of his investigations would show that the mucous membrane of the bladder is non-absorbent in its normal condition, except possibly a little water, whereas the mucous membrane of the urethra absorbs remedies with moderate freedom, we may be influenced in our application of remedies to the parts in cases where absorption is necessary before benefit can accrue.

The results given of the experiments of Schatz, Odelbrecht, Hegar, and Dubois regarding the effects of posture on bladder pressure are very instructive.

It is a mistake to devote but little more than two pages to the development of the bladder and urethra in a standard work, as this must become, of the size of the volume before us. Under this head the author says: "Indeed, the ureters are processes that are developed from the kidneys and extend downwards until they unite with the bladder and finally open into it." Here we cannot agree with him, for, according to Kupffer, and as confirmed by a number of other observers, including Waldeyer, in the lowest class, or amphibia, the Wolffian body directly bears the hollow bud which gives the foundation of the permanent kidney, while in the upper classes the *duct* from the Wolffian body gives rise to a second or renal canal from which the budding formation takes place.

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[1] *Diseases of the Bladder and Urethra in Women.* By ALEX. J. C. SKENE, M. D. New York: William Wood & Co. 1878.

The chapter on diseases of the urethra is the best in the book. It treats of a subject which has been much neglected by authors generally, and the writer has done the profession a great service in so clearly defining a series of troublesome affections to which this canal is liable, and thus supplying a need in the literature of the subject which all have felt. We can most heartily commend the book to practitioners as a volume necessary to their libraries.

THE NATIONAL DISPENSARY.[1]

We are pleased that the rapid sale of this work has called for the publication of a new edition, which, especially that portion of it devoted to the therapeutical action ot drugs, is vastly improved. In the preface to this second edition it is stated that "the new matter embraced in the text of the present edition is equal to nearly one hundred pages of the first edition; . . . . these additions comprise in part nearly the entire German Pharmacopœia and numerous articles from the French Codex. . . . . The Therapeutical Index has been extended by about two thousand two hundred and fifty new references, making the total number in the present edition about six thousand. The articles there enumerated as remedies for particular diseases are not only those which, in the author's opinion, are curative or even beneficial, but those also which have at any time been employed on the ground of popular belief or professional authority."

A careful comparison of the two editions induces us to indorse the above extracts, and to recommend this book to our readers as one that contains a large amount of information upon the therapeutical uses of drugs of the materia medica; indeed, the action of most of those which have lately been presented to the medical profession is fairly related.

The article on arsenious acid, which is the main article on arsenic, has been improved by the addition of new material, and especially by the introduction in the context of the proper doses of officinal preparations. Another improvement is the mention throughout the book of doses expressed in the metrical system of weights and measures as well as in troy weight. New material has also been added to the article on digitalis. A valuable addition is the notice of that soft paraffine, which is known by the common name of vaseline jelly, and is useful in the preparation of certain ointments as a substitute for lard.

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[1] *The National Dispensary.* By ALFRED STILLE, M. D., LL. D., and JOHN MAISCH, Phar. D. Second edition thoroughly revised, with numerous additions. Philadelphia: Henry C. Lea.

Among other articles which have been improved by the revision and addition of new material is that on jaborandi and pilocarpine.

The therapeutical portion of the work, though somewhat modified, is still apparently tinged with the individual opinions of the author.

THE LAWS OF THERAPEUTICS.[1]

This book appears to be a clinical record of the author's individual experience, with running comments on the use of medicinal agents and a historical record of the progress of therapeutics. The most valuable portion is that concerning the cases of disease which have come under the author's observation. In our judgment it would have been in better taste not to have mentioned the names of other physicians who had been previously summoned to these cases: for instance, in the cases presented on page 116 and on page 121 reference to the physicians therein named is of no advantage to the medical public; and such sentences as that on page 127, "What a boon to the patient when a dexterous knowledge of the science and art of medicine enables the doctor to prescribe what cures the disease permanently, and does not require perpetual dosing!" have more of the appearance of self-laudation than is consistent with modesty.

We are rather surprised that the author should advocate so strongly the doctrine of "similars," which hardly seems justified from a close study of the cases adduced to prove this so-called law. The *post hoc propter hoc* argument which Dr. Kidd illustrates on page 142 has led him astray from the establishment of definite laws of therapeutics. On the whole, we fear that the publication of this book will hardly advance the scientific knowledge of the use of medicinal agents.

THE NATURE OF MALARIA.

After the meeting of naturalists held at Cassel in September, 1878, Professor Klebs, a German, and Signor Tommasi-Crudeli, an Italian, determined, if possible, to solve the question whether the substance which causes malaria is due to the formation of gaseous products in the soil, or is rather to be attributed to organisms such as of late years have begun to be recognized as the causes of other infective diseases. They selected the Roman Campagna as their field of operations, and began their investigations last spring. The result of their researches up to that time were communicated by Tommasi-Crudeli about the 1st of June to the Reale Academia dei Lincei, and received the attention of an article in the August number of the *Practitioner*. These gentlemen first investigated the action upon the living organism of various sorts of earth, air, and water of malarious places, the solid parts, including the microscopical parts, of the substances which had been recognized as capable of producing malarious infection being subsequently separated from the liquid parts to discover separately the morbid action of each, which action, in the case of the various residua, was in its turn tested by injecting them into the subcutaneous cellular tissue of rabbits, and tracing a curve of the temperature, and finally making post-mortem examinations of the animals. The three points sought as proofs were regular intermissions of temperature, swelling of the spleen, and absence of pathological alterations due to other diseases. The results of their observation they sum up as follows: (1.) The malarious poison is found extensively and in great quantity in the soil of malarious regions, even at a season in which it does not usually produce malarial fever in man. (2.) This poison may be gathered in such seasons in the strata of air which are found in immediate contact with the surface of the soil in places favorable to its production. (3.) Stagnant water in malarious regions does not seem to contain the malarious poison at this season, although it may be very rich in low organisms; a large quantity of water hinders the development of the malarious poison by rendering its germs inactive. (4.) The infection of liquids obtained directly from the soil or from artificial culture, and of the residue obtained by filtration from the cultivated liquids, always caused in the animals experimented upon a fever with a typically regular course, and with intermissions which, in some cases, lasted as long as sixty hours, and with a rise of temperature which might attain 41.8° C., the normal temperature of the rabbits being 39.5° C. The filtrate from the liquids, even when injected in quantities five times as great as that of the liquids themselves, produced only slight increase of temperature of an intermittent character; this negative result was obtained even by simple filtration through doubled paper, the usual filtration being through filters of plaster of Paris. In all the animals infected with malarious fluids very marked swelling of the spleen was found, and frequently black pigment in large quantities. These investigators conclude that the organisms which are to be regarded as the true causes of malaria belong to the genus *bacillus.* In the soil of malarious regions they are found in the form of numerous spores, which have the power of independent motion and strongly refract the light. They have an elongated, oval figure, and a maximum diameter of 0.95 millimetres. They develop either within the body or in cultivating apparatuses into long filaments, at first homogeneous, but later undergoing transverse fission, being converted thereby into a chain, in the interior of each link of which new spores develop. This plant does not develop in water, but in liquids rich in nitrogenous substances.

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[1] *The Laws of Therapeutics; or, The Science and Art of Medicine.* By Joseph Kidd, M. D. Philadelphia: Lindsay and Blakiston. 1879.

These observations have much interest and importance from the philosophical care and ingenuity with which they were conducted, from their leading us in the direction which seduced Dr. Salisbury, of Ohio, fifteen years ago, from the lasting and insidious influences of the malarious taint in a constitution which it has once invaded, in this respect rivaling even the syphilitic poison, and from the increasing area and vigor of the poison in some of the most attractive and populous parts of our own country.

We hear of places in the neighborhood of New York where previous generations have lived with apparent impunity in which the descendants do not thrive, and we believe ourselves to be correct in stating that malaria has invaded even such a spot as West Point, which certainly was formerly free from it, and which from its situation would have been thought likely to enjoy a continued immunity. Any investigations which promise to reveal to us the real nature of this hitherto mysterious poison, of its mode of action upon the human economy, or of the mode of action of quinine upon it cannot fail to be extremely welcome, and we hope to hear again from Messrs. Klebs and Tommasi-Crudeli.

DIPHTHERIA IN PITTSBURGH.

In the Report of the Board of Health for 1878 we find an interesting account of the prevalence of diphtheria in Pittsburgh during the two years ending July 31, 1879. In that time there were nine hundred and eighty-four deaths, the population being now estimated at one hundred and forty-five thousand. The *infected* district is of ninety acres in extent, and lies at the foot of an abrupt hill, four hundred and fifty feet high. In that district diphtheria began to prevail in August, 1877, causing forty-three deaths in that month. An invasion so sudden and destructive, restricted mainly to a particular locality, it was thought, could not possibly have been propagated with sufficient rapidity to produce such results exclusively by contagion, while the evidence was strongly presumptive that in the sewers, particularly the one through Washington Street, in which a mass of filth from one foot to three feet in depth had accumulated, the specific poison, germ, morbid principle, or whatever it may be called, which causes the disease known as diphtheria had found a lodgment and a favorable soil for its development and multiplication. To the local sewers, undoubtedly, was due the fact that the disease selected this district as its habitat, and from this locality as a centre radiated, presumably by virtue of its contagious properties, in every direction. This sewer had twenty-nine street-drops, none of them trapped, into one of which a slaughter-house discharged its refuse. It had not been cleaned for twenty-eight years, and in 1877 was "choked" for two thousand feet of its length. Another infecting sewer passing up the hill apparently served to ventilate the low-ground sewer, and also to carry off the filth from several slaughter-houses. A violent rain storm on July 27th filled up the sewers, forcing the gases into the houses, which were unprotected by adequate street ventilation or suitable internal drainage, and the outbreak of diphtheria occurred a few days later. August 12th and 15th the sharp rains were followed by sudden increase in the disease. The same district has been ravaged with the whole class of low fevers, and even malarial fever originates there. The low sewer was diverted from its original purpose of draining the soil, and was never smooth and of proper grade to be self-flushing. The thorough drainage and sewerage of the city, as recommended, of course, is the only remedy for such a state of things. That the board of health has been vigilant and active to do its part is easily inferred from the fact that they abated during the past year 9568 nuisances, of which 1683 were caused by full, leaking, or foul privy-wells.

MEDICAL NOTES.

— Dr. Rosa Welt, a young lady of Vienna, has received the appointment of assistant to the chair of ophthalmology in Berne.

— The *British Medical Journal* of October 11th gives an interesting sketch of the methods of the preservation of subjects in London dissecting rooms. At Guy's the subjects are injected by the Howse method, glycerine and arsenic, but are afterwards put into a carbolic acid solution. At St. Mary's the injecting material is composed of vermilion, arsenic, plaster of Paris, and size. At Middlesex Hospital, arsenic in a solution of carbonate of potash was used, the subjects being afterward wrapped in carbolic acid cloths. At University College, carbolic acid in glycerine is the injecting material. In other schools, chloride of zinc, bichloride of mercury, arsenite of soda, arsenic, creosote, and soda, etc., etc., are used in various combinations. Not one of these schools, however, made use of a solution of chloral, as first used by Dr. Keen, of Philadelphia. This is an economical and perfectly satisfactory method of preservation. Under its influence subjects not only remain sweet for weeks, even in warm weather, but the muscular tissue retains its normal flexibility and brightness of color.

— An English physician in Jamaica W. I., writes the *British Medical Journal* that in performing an autopsy on the body of a coolie child he found no kidney on the right side. On the left, however, there was a double kidney, or rather two kidneys, connected at their apices by a prolongation from the cortical substance of each. Each kidney had a separate ureter, the two uniting and forming a single tube just before its entrance into the bladder. The organ which represented the right kidney was the smaller of the two, and both appeared to be healthy. Otherwise the organs of the child were normal.

— Ergot is now recommended as a local remedy in catarrhal affections of the eye and throat. In chronic conjunctivitis the strength is .65 of the extract to 32 of water, a little glycerine being added to preserve the drug. In throat affections it forms an excellent element in a gargle, or may be applied in combination with the tincture of iodine. In nasal catarrh it may be applied by means of gelatine bougies.

— The *Medical Press and Circular* vigorously indorses the vote of the council of the English Pharmaceutical Society to admit two ladies to the society. The president alone dissented. This journal justly remarks: "We have already deprecated the exclusion of women from the medical profession by any special regulation, while at the same time we expressed our firm conviction that, as a rule, ladies are in all respects unsuited for anatomical study or practice. We do not, however, see their incapacity for dispensing medicines, and therefore claim their right to a fair stage and no favor."

— Says the *Medical Press and Circular:* "A literary wit of scientific tendencies is rather hard upon Professor Tyndall, and thinks that the dean of Westminster, when he married him a short time since, missed his opportunity. He is of opinion that when the dean put the familiar query in the marriage service, it should have run thus: Do you take this anthropoid to be your coordinate, to love with your nerve centres, to cherish with your whole cellular tissue, until a final molecular disturbance shall resolve its organisms into its primitive atoms! The learned professor would probably have thought twice before answering, I will!"

— The number of medical students in the principal German universities for the summer session of 1879 was as follows: Vienna, 697; Munich, 503; Wurzburg, 458; Dorpat, 436, Berlin, 412; Leipzig, 389; Greifswald, 244; Breslau, 181; Freiburg, 174; Tübingen, 174; Zurich, 168; Strasburg, 166; Bonn, 144; Halle, 143; Göttingen, 141; Berne, 138; Graz, 137; Heidelberg, 136; Marburg, 126; Königsberg, 125; Erlangen, 121; Jena, 100; Giessen, 98; Kiel, 97; Bale, 77; Rostock, 37.

— The *British Medical Journal*, October 18th, states that not a single fatal case of small-pox was registered the previous week in London, or either of the nineteen other large English towns. Two deaths from the disease occurred in Dublin.

NEW YORK.

— From the report of Dr. John T. Nagle, chief of the Bureau of Vital Statistics, for the three months ending September 30th, which has just been completed, we learn that during the quarter 7686 deaths occurred in the city, representing an annual death-rate of 28.01 per thousand of the population. This of course includes the period when the mortality is always much larger than at any other time during the year. There were forty-one fewer deaths in the same quarter of 1878, but the death-rate was then actually larger (being 28 22), as the population was about fourteen thousand less than in the summer of 1879. There were 6524 births during the quarter, as compared with 6762 during the corresponding quarter of last year.

The deaths in the first three quarters of each year since 1871 compare as follows: 1871, 21,076; 1872, 26,292; 1873, 22,690; 1874, 21,719; 1875, 24,162; 1876, 23,335; 1877, 20,214; 1878, 20,643; 1879, 21,868. The number of deaths during the third quarter of 1879 from contagious and other prominent diseases as compared with the number during the corresponding period of 1878 was as follows: —

	1879.	1878.
Small-pox	13	0
Measles	72	23
Scarlatina	176	46
Diphtheria	101	152
Whooping-cough	94	138
Typhus fever	2	1
Typhoid fever	58	93
Diarrhœal diseases	2084	2119
Pneumonia	309	not stated.
Membranous croup	72	50
Cerebro-spinal fever	30	not stated.
Malarial fevers	137	117

— About a month ago a pregnant woman was admitted to Charity Hospital, Blackwell's Island, suffering, as was supposed, from violent treatment at the hands of her husband, with whom she stated that she had quarreled. She continued to grow worse, and after a time it became so evident that she was sinking that the coroner was summoned to take her ante-mortem statement, in which she accused her husband of kicking her. Afterwards, when she was about dying, the Cæsarean section was performed upon her, and a living child was extracted from the uterus. She did not long survive the operation, but when the coroner's physician made an autopsy, the day following her death (October 22d), he discovered the body of a second child in the uterus, which, curiously enough, had entirely escaped the notice of the surgeon who had made the abdominal section. There were no marks of violence visible about the woman, but the kidneys were found to be in an advanced state of disease.

— The Mount Sinai Hospital, which was built and is supported by the Hebrews of New York, has just been renovated throughout, while a number of improvements have been made in its arrangements for the better accommodation of patients. In honor of the completion of these improvements, a reception was given at the hospital on Sunday, the 26th, which was largely attended by those interested in the institution. Of late several large contributions have been received by the managers, the principal one being a gift of twenty-five thousand dollars from Michael Rees, of California.

— The New York Flower Charity has just brought its work for the season to a close. Since its opening in the spring it has received and distributed no less than one hundred and forty thousand bouquets in one hundred and two different hospitals and other charitable institutions, besides among the sick in the tenement houses. Last week a very interesting "praise service of the flowers" was held at the St. Cloud Church, on Orange Mountain (which was beautifully decorated for the occasion), by way of completing the summer's work of the congregation in this direction, and Miss Russell, the originator and still the secretary of the New York society, was herself present. There was appropriate music, with addresses and recitations (some of them by little girls of the Sunday-school) on the beauty and ministry of flowers, and Mr. John Crosby Brown read a number of extracts from letters written by ladies who had assisted in the distribution of the bouquets, describing with what marked appreciation they were often received. During the past season over ten thousand bouquets have been sent to New York by the St. Cloud Church. At Christmas it is proposed by the managers of the Flower Charity to decorate all the hospitals and asylums with evergreens, bright-colored berries, and illuminated mottoes, which will be allowed to remain in position for the rest of the winter.

— At the seventy-fourth annual meeting of the County Medical Society, held October 27th, Dr. Alfred E. M. Purdy, late vice-president, was elected president, and Dr. Horace P. Farnham, late treasurer, vice-president. The following gentlemen were elected honorary members: Frederick D. Lente, M. D., of Saratoga Springs, N. Y., John S. Billings, M. D., of Washington, and Gaetano La Logia, M. D., of Palermo, Italy.

— Dr. Matthew D. Mann, recently of New York, but now of Hartford, Conn., has been elected clinical lecturer on gynæcology in the Yale Medical School. Dr. Mann is a graduate of the academic department of Yale, class of '67.

CLINIC OF ABRAM JACOBI, M. D.,[1]

CLINICAL PROFESSOR OF DISEASES OF CHILDREN AT THE COLLEGE OF PHYSICIANS AND SURGEONS, NEW YORK.

Hæmatoma of the Facial Region. — GENTLEMEN: The child who will first engage our attention to-day fell down about four weeks ago and struck his face a little below and to the right of the right eye. There was never any discoloration more than a little redness, but there soon followed some swelling at the seat of injury, which increased gradually in size for four or five days, and then remained stationary for a week, after which it began to diminish slowly. At present you observe some tumefaction of the part, and upon palpation we find that it gives a slight sensation of fluctuation.

The above history is that of an ordinary hæmatoma, which, as you know, comes from hæmorrhage resulting from injury to blood-vessels by violence. These tumors are generally formed between the bone and the periosteum, which circumstance occasions in the beginning the formation of a peculiar raised ring upon the surface of the bone, this being the result of the development of new bone from the periosteum. This feature we never miss in the hæmatomata seen on the heads of new-born children in the region of the parietal or occipital bones, and its absence in the present instance is the only point against the diagnosis of hæmatoma. The reason that this sign is wanting here is probably because the tumor is situated in the subcutaneous tissues.

On more careful palpation, I find that there is undoubtedly a little fluid which has not as yet been absorbed. In the absorption of the blood in these cases the serum disappears first, and then the solid constituents at a later period, when granular degeneration is taking place in them. Another termination is possible also, and that is, the remnants of the hæmatoma may become encysted. This is a common occurrence when the dura mater is the seat of the trouble.

Fracture of the Clavicle. — This boy, between four and five years of age, had a fall a week ago, after which it was noticed that there was something wrong about the left shoulder. It is on account of this that he is brought here to-day. The first thing that we notice when the child is stripped is that there is a want of symmetry between the two shoulders, there being a decided falling and carrying forward of the left one. Then, when we compare the clavicles, we find that while the line of the right is quite distinct and normal in position, this is not the case in regard to the left. On palpation there is decided thickening at one point along the latter, and there can be no doubt that the bone has been broken, and that this is a deposit of callus at the seat of fracture. The fracture, then, has partially healed of itself, and the process would certainly go on to completion if it were left simply to nature. Permanent deformity would, however, result, because the clavicle had not been retained in position. It is not too late to obtain a good result in this case, and the means for accomplishing it are of the simplest, merely a handkerchief and some pins being required. By the use of these all the indications for treatment can be fulfilled, and the child will not be annoyed by any cumbersome apparatus.

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[1] Reported for the JOURNAL.

Cervical Abscess. — Our next patient is an infant upon whose neck a swelling made its appearance about six weeks ago. As you see, it is in the neighborhood of the parotid gland, and it has been discharging pus for some time, so that the child seems to be growing weaker and weaker. The question which naturally comes up first is, whether it is simply glandular or periglandular, or whether there is any bone disease connected with it. I think we can decide, however, that the bone is not implicated, because we cannot feel anything abnormal about the bone with the finger inside the cheek, and because no dead bone can be detected by means of a probe inserted into the opening of the abscess. Then the mass is movable, and it has not at all the appearance of being connected with bone. It is unusually hard, and it is probable, therefore, that the gland is perforated by the abscess. The probe passes two and a half inches in it up to the lower end of the ear.

The mother has been keeping flaxseed poultices applied to the swelling, and four weeks ago she says it was lanced. After that it grew less in size and then enlarged again, and this process has now been repeated a second time, the tumor having become unusually large during the last four days. It is possible, therefore, that the mass may be suppurating in two or three places independently; or, in other words, that there may be both glandular and periglandular abscesses. I purpose to put the whole in as favorable a condition as possible, and will order the injection of a weak solution of carbolic acid four or five times a day. In case the carbolic acid affects the urine, — which would be indicated by a black and smoky appearance, — it ought to be discontinued, and thymol (of the strength of one part to a thousand) or some other good disinfectant substituted for it. No other treatment will probably be required, at least for the present; but if new inflammatory action should be set up, the application of ice would be indicated.

Empyema. — This little girl, two years of age, is said to have had an attack of pneumonia when five months old, and a second one six months ago. She has had a cough, with some difficulty of breathing, ever since, and we now find that her pulse is 166, respirations 48, and temperature 101° F. She has, you notice, an expression of dyspnœa, and there is a peculiar moaning expiration in her breathing. The temperature is not very high, but it is sufficiently so to denote some febrile reaction. The proportion of 48 to 166 is also abnormal, and shows that there are a greater number of respirations than there should be. Hence we conclude at once that there is something wrong about the respiratory organs, and that this is probably either bronchitis or pneumonia. If uncomplicated pleurisy were present we should not expect so much cough as we find in this case.

On the left side of the chest posteriorly there is great dullness on percussion all the way down, while the respiratory murmur is considerably diminished, but not altogether abolished. The dullness is of so marked a character and so extensive that it seems likely that there is liquid in the pleural cavity. If this fluid is purulent, of course the indication is for its removal, and on withdrawing a little of it by means of the hypodermic syringe I find that such is the case. Yet the respiratory murmur, as I mentioned, is not wholly absent, and then the respiration of the other lung may also be heard to some extent when the ear is applied to the left side of the chest. Had not the crucial test of the hypodermic syringe been applied here we might perhaps have suspected that the dullness was really due to exudation thickening of the pleura.

There is but one indication here, and unless this is fulfilled the child will undoubtedly die. Aspiration will probably be quite sufficient in a case of this kind. We do not know to how great an extent the lung may be bound down by adhesions, but if it is not too tightly held it will expand when the pressure of the fluid is removed from it. If the expansion is not complete we may expect that the ribs will fall in, since their ossification is not by any means completed. Were this little patient in such a position as to receive proper care I should hope for her recovery in from four to eight weeks. As her mother is circumstanced, however, I do not think it will be possible for her to receive the attention that her case demands, and I shall therefore urge that she by all means be sent to a hospital. But, as a rule, people in this woman's position in life would rather have their children die on their hands than give their consent to allowing them an excellent chance of getting well in institutions where they will get the best of care. The possibilities here are all in the child's favor if the mother will permit her to be sent to a hospital, and as she seems like a very sensible woman I trust that she will do this for the little one's interest. I would not think for a moment of aspirating here at the clinic and then sending the child home afterwards, on account of the danger involved.

This is the second case of the kind that I have seen within four hours in which a diagnosis of pneumonia has been made, and they should both serve as a warning to us, as we cannot be too careful in such a matter. Unless great caution is observed, we are liable to allow the fact of the presence of empyema to escape our attention, and either to attribute the trouble present to pneumonia, or else to pass it by altogether. Even when simple pneumonia is present we should be on our guard lest pleuritis should intervene. In one case which I was treating for empyema on one side of the chest, I was very much astonished to find that the same trouble had developed on the other side also. Hence, as I said, we cannot be too watchful in regard to this condition, which is, I believe, of more common occurrence than many would suppose.

SHORT COMMUNICATIONS.

ELECTROLYSIS OF UTERINE FIBROIDS.

BY EPHRAIM CUTTER, M. D.

In the proceedings of the Obstetrical Society of Boston, published in the Boston Medical and Surgical Journal, October 23, 1879, pages 594, 595, and 596, is a report of a fibrous tumor of the uterus healed by electrolysis, reported by Dr. Bixby. Line forty-one reads: "He had been told by Dr. Kimball that the latter had repeatedly seen growths disappear after the insertion of a trocar in the expectation of evacuating fluid." Dr. Kimball affirms that the gentleman who made the statement labors under a mistake, — that he said no such thing.

Page 596, line four, reads: "Its utter failure to effect the cure of ovarian tumors, as recently claimed with a great flourish of trumpets by Dr. Semeleder, and of cancers by Dr. Neftel, is sufficiently evident."

While I do not approve of Dr. Semeleder's mode of presentation, still, if the speaker will consult the records of his own gynæcological association, he will find that Dr. Mundé's late paper relates cases of positive cures. While, also, I do not know personally anything of Dr. Neftel's cures, I do know that Dr. Muzzy, of Cincinnati, personally assured me that his reported case of cancer of the hand was cured. We quote further: "With reference to the so-called electrolytic treatment of fibroids by Dr. Cutter, it should be known that his battery is universally admitted by electro-therapeutists to be so constructed as to produce no appreciable electrolytic action; so that if any electric current is transmitted by him it is certainly not electrolytic, but more probably caustic." Dr. Webber said in substance that the Cutter battery did not produce electricity enough to act through a thin layer of water. I have nothing to say but to quote history.

In the *Southern Clinic*, Richmond, Va., January, 1879, is a contribution by Dr. A. C. Garratt, of Boston, entitled Electricity employed by a New Method in Gynæcology, read before the Gynæcological Society of Boston, June 13, 1878. Page 127, line three, reads: "Now are we not in a position to assume the main fact in question, that such one-cell current does actually pass through fibrous matter when between such electrodes and not only one inch, but through many inches of it, whether alive, moist and warm, or bloodless, dead, or cold? This we can demonstrate before you. So observe that while this one-celled current is steadily working through four or five inches of fibrous meat, just taken from the refrigerator, the galvanometer needle is deflected and held at ninety degrees. It is shown again, you see, by the resistance tremble in the rheostat; also by this coagulation of albumen; also by the black cloud growing in this white iodized starch; and as I assure you it is seen by twitchings of muscles." The witnesses of this record are the members of this society who saw the above.

Last May I reported the following case to the American Medical Association: November 16, 1878. Mrs. M., Cambridge. Present Drs. Garratt and Warner, of Boston, Wheeler and Weeks, of Chelsea, Marcy, Norris, and Maeder, of Cambridge, Bartlett, of Woburn, and myself. The carbon electrode was introduced into the large fibroid through the abdominal walls. The zinc was introduced through the rectum. Current passed four minutes. Dr. Garratt intercalated a galvanometer, and the needle was deflected one hundred and seventy degrees.

In the New York *Medical Record,* March 17, 1879, page 162, column two, line forty-seven, Dr. George M. Beard writes: "The method adopted by Drs. Kimball and Cutter has been criticised in an article in the Boston Medical and Surgical Journal by my friends Drs. Webber, of Boston, and Hutchinson, of Providence. Dr. Webber suggested that only heating effects could be obtained, and there would be no electrolysis at all when a large cell was connected with a solid fibroid in the method of Drs. Kimball and Cutter. This criticism is doubly incorrect."

In a paper on Sprague's galvanometer, read to the Illinois State Medical Society, May, 1878, Dr. David Prince proved that it had a current, alluding to Drs. Webber and Hutchinson. Drs. Semeleder, Louis Elsberg, J. J. Caldwell affirm the same. Also Prof. Moses G. Farmer. About one year ago I demonstrated a current with my battery No. 1 to the Suffolk District Society, through four inches of beef. To me this subject has the flavor of a dead issue.

In closing, Case XVII., operated on thrice in November, 1878, reported as reduced one half, was examined October, 1879, and the tumor was found to have entirely disappeared.

94 TREMONT STREET, BOSTON, MASS., *October* 29, 1879.

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UNUSUAL VOMITING.

MR. EDITOR, — I was called, September 26th, to attend a young lady, A. M. C., aged twenty-four years, a domestic, for vomiting. Upon my arrival, the family informed me that she had been vomiting bile for eighteen hours. She was greatly depressed, and her condition excited a good deal of alarm. Bismuthi subnit., potass. brom., hydg. cum cretâ, ammo. mur., etc., were prescribed as she would bear them, and after four days she was able to retain a little nourishment. There was no pain until October 1st, and then she was attacked with a severe cramp in the region of the sternal end of the last rib; next day extreme tenderness followed. This state of things lasted for five days, and vomiting again set in. The substance vomited was about one half a cupful of pus mixed with blood, very offensive. The next day pain and soreness began to diminish, and convalescence commenced, but she continued to expectorate rusty sputa for a number of days. No cough. I could detect no dullness or râles in any part of the lungs.

I would like to hear from some of the readers of the JOURNAL of any like experience and result, and if any one would like a more minute description will gladly give it.

FREEPORT, ME., *October* 24, 1879. J. G. PIERCE.

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THE ADMISSION OF WOMEN TO THE MASSACHUSETTS MEDICAL SOCIETY.

MR. EDITOR, — Having been one of those present at the October meeting of the councilors of the Massachusetts Medical Society, when the question of admitting women to examination by the censors for admission to membership, I must confess that I read with surprise the editorial in the JOURNAL of the week. That a majority of forty-eight to thirty-two, one half of the whole number of the minority, one fifth of the aggregate vote, should be called *small* seemed to me either excessively unfair or very careless. Then the assumption of superiority pervading the tone of the article, announcing that if the majority did not reverse their action they would be disgraced, and asserting as an undoubted fact that the society at large would reverse the action of their council. Whereas the very report, in consequence of which this vote of the council was taken, shows seventy-one per cent. favorable to the admission of properly qualified women to full membership in the Massachusetts Medical Society, as shown by the replies from the society at large to a circular addressed to them by the Middlesex District Medical Society.

Then, again, with regard to the fears expressed for the endangered modesty of the Fellows, the writer of the article fails to perceive any danger of immodesty from conversation with females upon delicate subjects who are *not* practitioners of medicine, whereas it seems to me that the admission of women to the practice of medicine would tend to diminish the amount of conversation between those of different sexes upon such subjects.

Then, still again, as to the fear expressed of loss of scientific status, I do not see that the Medical Society of New York has suffered in its scientific reputation because it has admitted women to membership, and has been even presided over at its meetings by Mrs. Jacobi, who received a Boylston prize for a very valuable paper on menstruation, in competition with several other very able papers on the same subject. The medical societies of North Carolina and Rhode Island have also admitted women to membership, and I have not yet seen this fact spoken of as any indication of their scientific decadence. That there should be a difference of opinion upon this as upon almost every other new subject is to be expected, but it does not seem decorous in a medical journal to set up its opinion as so very conclusive in speaking of the action of a *large* majority of the chosen councilors of the medical society of the State. S. CABOT.

[The above is perhaps a fair sample of the sort of argument to which we are accustomed from the woman side of the question; as to the charge of discourtesy in our editorial, we think we can safely leave the two articles to the judgment of our readers. It will be observed, however, that our argument has hardly been touched upon. — ED.]

REPORTED MORTALITY FOR THE WEEK ENDING OCTOBER 25, 1879.

Cities.	Population estimated for July, 1879.	Reported Deaths in each.	Deaths under Five Years.	Percentage of total Deaths from				
				The Principal "Zymotic" Diseases.	Diphtheria and Croup.	Lung Diseases.	Diarrhœal Diseases.	Scarlet Fever.
New York	1,085,000	509	224	20.24	5.50	16.70	7.27	1.77
Philadelphia	901,380	248	—	9.27	4.03	7.66	2.02	1.21
Brooklyn	564,400	190	85	22.63	16.32	8.95	5.26	—
Chicago	—	179	75	26.82	16.20	5.59	1.68	5.59
St. Louis	—	87	36	13.79	4.59	5.75	3.45	—
Baltimore	393,796	131	65	33.59	16.03	3.82	6.11	6.11
Boston	360,000	138	52	23.19	5.79	6.52	10.14	2.17
Cincinnati	280,000	74	35	16.22	5.41	6.76	8.11	1.35
New Orleans	210,000	—	—	—	—	—	—	—
District of Columbia	170,000	71	25	22.53	4.23	9.86	9.86	—
Cleveland	160,000	41	20	41.46	24.39	4.88	2.44	4.88
Pittsburgh	—	45	28	35.56	15.56	13.33	4.44	6.67
Buffalo	—	—	—	—	—	—	—	—
Milwaukee	127,000	35	19	11.43	5.71	20.00	5.71	—
Providence	101,500	48	22	47.92	10.42	4.17	2.08	33.33
New Haven	60,000	17	7	11.76	5.88	—	—	—
Charleston	57,000	15	5	26.67	—	—	13.33	—
Nashville	27,000	—	—	—	—	—	—	—
Lowell	53,300	23	—	17.39	13.04	13.04	—	—
Worcester	52,500	13	5	7.70	—	7.70	—	—
Cambridge	50,000	18	5	11.11	11.11	—	—	—
Fall River	48,500	—	—	—	—	—	—	—
Lawrence	38,200	17	7	23.53	17.65	5.88	—	—
Lynn	34,000	13	5	38.46	30.77	—	—	—
Springfield	31,500	—	—	—	—	—	—	—
New Bedford	27,000	12	2	33.33	25.09	—	—	—
Salem	26,400	6	4	33.33	16.67	—	16.67	—
Somerville	23,350	9	—	22.22	—	—	11.11	—
Chelsea	20,800	5	3	20.00	20.00	—	—	—
Taunton	20,200	5	1	—	—	20.00	—	—
Holyoke	18,200	7	—	28.57	—	—	—	28.57
Gloucester	17,100	5	3	—	—	—	—	—
Newton	17,100	5	3	60.00	20.00	20.00	40.00	—
Haverhill	15,300	9	—	11.11	—	—	—	—
Newburyport	13,500	6	1	—	—	—	—	—
Pittsfield	12,650	3	—	—	—	—	—	—
Fitchburg	12,500	2	—	—	—	—	—	—
Milford	9,800	4	1	50.00	25.00	—	25.00	—

Nineteen hundred and ninety deaths were reported: principal "zymotic" diseases (small-pox, measles, diphtheria and croup, diarrhœal diseases, whooping-cough, erysipelas, and fevers) 432, consumption 326, lung diseases 186, diphtheria and croup 182, diarrhœal diseases 106, scarlet fever 57, typhoid fever 36, malarial fevers 23, whooping-cough 17, erysipelas seven, cerebro-spinal meningitis four, measles none, small-pox none. From *scarlet fever*, Providence 16, Chicago 10, New York nine, Baltimore eight, Philadelphia, Boston, and Pittsburgh three, Cleveland and Holyoke two, Cincinnati one. From *malarial fevers*, New York 10, Chicago and St. Louis three, District of Columbia and Charleston two, Brooklyn, Baltimore, and Cleveland one each. From *whooping-cough*, New York six, Baltimore and Boston three, Brooklyn, Cincinnati, District of Columbia, Cleveland, and Pittsburgh one each. From *erysipelas*, New York three, Philadelphia two, St. Louis and Pittsburgh one each. From *cerebro-spinal meningitis*, New York, New Haven, Worcester, and Somerville one each. From *trismus nascentium*, District of Columbia two, Baltimore one. Nashville reports two deaths from cerebro-spinal meningitis and one from diarrhœal disease, — total deaths not given. Diphtheria, consumption, and lung diseases showed an increase over the previous week to equal the fatality two weeks before; diarrhœa continued to decline; typhoid fever has been declining for three weeks, while scarlet fever remained the same; malarial fevers and whooping-cough were less fatal than in the preceding week, and the deaths from measles declined to nothing. In 18 of the cities and towns of Massachusetts scarlet fever and diarrhœa were declining.

The thermometer in Philadelphia, Brooklyn, and Baltimore averaged for the week 52.8°, 52.31°, and 54.1° F. In Cleveland the weather was snowy, cold, and stormy; in Milwaukee turning cold. The meteorological record for the week in Boston was as follows: —

Date.	Barometer.	Thermometer.			Relative Humidity.				Direction of Wind.			Velocity of Wind.			State of Weather.[1]			Rainfall.	
	Mean.	Mean.	Maximum.	Minimum.	7 A. M.	2 P. M.	9 P. M.	Mean.	7 A. M.	2 P. M.	9 P. M.	7 A. M.	2 P. M.	9 P. M.	7 A. M.	2 P. M.	9 P. M.	Duration.	Amount in Inches.
Oct. 19	29.970	48	65	39	100	49	49	66	W	NW	NW	4	28	13	R	F	C	6.83	.24
" 20	30.187	44	52	35	70	28	61	53	W	NW	W	10	15	4	O	C	C	—	—
" 21	30.179	57	71	36	68	21	42	44	W	W	SW	11	12	12	C	F	F	—	—
" 22	30.192	59	67	53	93	64	88	82	S	S	SE	4	12	3	R	O	F	6.50	.02
" 23	29.867	63	73	56	100	66	59	75	S	SW	NW	5	10	11	G	F	F	.83	.02
" 24	30.107	38	56	31	59	41	43	48	NW	NW	W	20	22	13	F	O	C	1.50	—
" 25	30.627	32	39	26	54	38	39	50	W	NW	W	12	22	5	C	F	C	—	—
Week.	30.161	49	60	39				60	NW			2005 miles.						15.67	.28

[1] O., cloudy; C., clear; F., fair; G., fog; H., hazy; S., smoky; R., rain; T., threatening.

The epidemic of yellow fever in Memphis is virtually at an end, and people have freely returned to their homes.

For the week ending October 4th, in 149 German cities and towns, with an estimated population of 7,615,560, the death-rate was 24.7 against 25.3 of the previous week: diarrhœal diseases 618, pulmonary consumption 400, acute diseases of the respiratory organs 231, diphtheria and croup 101, scarlet fever 77, whooping-cough 62, typhoid fever 61, measles 23, puerperal fever 12, small-pox two (Beuthen and Dresden), typhus fever none. The death-rates ranged from 9.6 in Kiel to 41.6 in Frankfort-on-the-Oder; Munich 35.5; Berlin 24.3; Leipsic 21.8; Hamburg 24.6; Hanover 17.3; Bremen 16.7; Cologne 25.2; Frankfort 16.5. Also for the same week, Vienna 24.1; Paris 24.7.

For the week ending October 11th, in the 20 English cities with an estimated population of 7,383,999, the death-rate was 19.6 against 19.9 of the previous week. Two thousand seven hundred and seventy-one deaths were reported: diseases of the respiratory organs 190, scarlet fever 151, diarrhœa 149, measles 62, whooping-cough 52, fever 41, diphtheria 19, small-pox none. The death-rates ranged from 13.7 in Bristol to 24.5 in Liverpool; London 19.7; Birmingham 16.4; Manchester 24.1; Leeds 18.7. Edinburgh 19, Glasgow 18, Dublin 29. In the 20 Swiss towns, diarrhœa, typhoid fever, and lung diseases were very prevalent; whooping-cough and diphtheria moderately so; scarlet fever and small-pox to a slight extent. The death-rates ranged 4.6 to 36.2; Geneva 24.7; Zurich 22.9; Basle 23.8.

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OFFICIAL LIST OF CHANGES OF STATIONS AND DUTIES OF OFFICERS OF THE MEDICAL DEPARTMENT U. S. ARMY, FROM OCTOBER 24, 1879, TO OCTOBER 31, 1879.

Irwin, B. J. D., major and surgeon. Having reported for duty at these head-quarters, he is assigned to duty at Fort Meade, D. T. S. O. 116, Department of Dakota, October 21, 1879.

Wolverton, W. D., major and surgeon. Assigned to duty at Fort A. Lincoln, D. T. S. O. 115, Department of Dakota, October 18, 1879.

Gibson, J. R., major and surgeon. Having reported at these head-quarters, to proceed to Fort McHenry, Md., and report to the commanding officer for duty. S. O. 192, Department of the East, October 28, 1879.

Tremaine, W. S., captain and assistant surgeon Fort Dodge, Kansas. Granted leave of absence for one month on surgeon's certificate of disability, with permission to leave the department and apply for two months' extension. S. O. 214, Department of the Missouri, October 27, 1879.

Hall, J. D., captain and assistant surgeon Fort Concho, Texas. Granted leave of absence for one month on account of sickness. S. O. 221, Department of Texas, October 20, 1879.

Kilbourne, H. S., first lieutenant and assistant surgeon. Assigned to duty as post surgeon at Fort Porter, N. Y. S. O. 189, Department of the East, October 24, 1879.

Hall, William R., first lieutenant and assistant surgeon. Upon the termination of his services at Camp Winfield Scott, W. T., to proceed to and take station at Fort Cœur d'Alene, Idaho. S. O. 142, Department of the Columbia, October 10, 1879.

LIST OF CHANGES IN THE MEDICAL CORPS OF THE NAVY DURING THE WEEK ENDING OCTOBER 31, 1879.

Surgeon T. Wolverton detached from the Kearsarge and to hold himself in readiness for the U. S. S. Powhattan.

Passed Assistant Surgeon W. A. Corwin ordered to the U. S. S. Kearsarge.

Passed Assistant Surgeon Robert Swan detached from the Naval Academy and ordered to the U. S. S. Kearsarge.

Assistant Surgeon J. C. Byrnes detached from the U. S. S. Kearsarge and ordered to report, November 10th, at the Naval Hospital, Chelsea, Mass.

Assistant Surgeon S. H. Dickson detached from the Naval Hospital, New York, and ordered to the Naval Hospital, Norfolk, Va.

Passed Assistant Surgeon E. H. Green ordered to the Naval Academy, Annapolis.

The final examination in the medical department of Dartmouth College will be held on Monday and Tuesday, November 10th and 11th. The examiners are S. C. Wheeler, M. D., Portsmouth, N. H., I. A. Watson, M. D., Groveton, N. H., of the New Hampshire Medical Society, L. C. Butler, M. D., Essex, Vt., and George Dunsmore, M. D., St. Albans, Vt., of the Vermont Medical Society. The graduating exercises will take place in the college church, Tuesday evening.

Books and Pamphlets Received. — Cases of Hepatic Abscess, with Remarks upon the Varieties, Ætiology, and Diagnosis of the Disease. By Louis Starr, M. D. (From the Transactions of the College of Physicians and Surgeons of Philadelphia.)

Transactions of the Medical Society of New Jersey. 1879.

Hygiene of the Voice: Its Physiology and Anatomy. By Ghislani Durant, M. D., Ph. D. A New and Revised Edition. New York: Cassell, Petter, Galpin & Co. 1879. (Estes and Lauriat.)

Lunacy Reform. Historical Considerations. By E. C. Seguin, M. D. New York: G. P. Putnam's Sons. 1879.

Transactions of the Indiana State Medical Society. 1879.

The Treatment of Diseases by the Hypodermic Method. A Manual of Hypodermic Medication. By Roberts Bartholow, M. A., M. D., LL. D. Third Edition, enlarged. Philadelphia: J. B. Lippincott & Co. London, 16 Southampton Street, Covent Garden. 1879. (A. Williams & Co.)

The Pathology and Treatment of Venereal Diseases. By Freeman J. Bumstead, M. D., LL. D. Fourth Edition, revised, enlarged, and in great part rewritten by the Author and by Robert W. Taylor, A. M., M. D. With 138 Wood-cuts. Philadelphia: Henry C. Lea. 1879.

Hall's Metric Dose Book. Giving the Maximum and Minimum Doses of Drugs by the Metric System, etc. By Edward D. Hall, M. D. Harv. Boston. For sale by N. R. Campbell. 1879.

A Conspectus of three Different Forms of Acute Inflammatory Cardiac Disorder. By Roswell Park, A. M., M. D. Chicago. 1879.

Consumption, and How to Prevent It. By Thomas J. Mays, M. D. New York: G. P. Putnam's Sons. 1879. (A. Williams & Co.)

Duhring's Atlas of Skin Diseases. Part VI. Philadelphia: J. B. Lippincott & Co. 1879. (A. Williams & Co.)

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LECTURES.

CLINICAL LECTURES ON THE PHYSIOLOGICAL PATHOLOGY OF SYPHILIS.[1]

DELIVERED AT THE COLLEGE OF PHYSICIANS AND SURGEONS, NEW YORK, SESSION OF 1878–79.

BY FESSENDEN N. OTIS, M. D.,
Clinical Professor of Genito-Urinary Diseases, etc.

THE *locality* of the syphilitic papule is found to influence its development to a greater or less extent. Thus, when the papular eruption appears on the hairy scalp, it is usually sparse, and covered with serous scabs. When situated in the depending portions of the body, as about the ankles, the papules tend to become pustular, and occasionally present as ulcerations of considerable size. When occurring upon mucous membranes, the papular eruption assumes the peculiar and characteristic features usually described by authors as the *placque muqueuse*, or the mucous patch, commonly and best seen in the mouth and upon the mucous membrane of the faucial regions. In appearance it is like superficial erosion, covered with, or bordered by, a diphtheretic exudation of a pale gray color. When on the borders of the lip, it approaches more to the papular form. Papules situated on integument in the *vicinity* of mucous membrane, as at the anus, when they are subjected to continued moisture, and also for the same reason when about the scrotum or between the fingers or toes, appear as broad papules, often considerably elevated, eroded, more or less covered with the diphtheritic deposit, and exuding a serous secretion which decomposes easily, and are commonly associated with a characteristic disagreeable odor. These moist papules, to distinguish them from the mucous patch, and from their greater elevation, are called *mucous tubercles*. In the presenting case, in addition to the *corona veneris* and the papules which we have seen scattered over his body, I now call your attention to a characteristic *mucous patch* on the inner surface of the cheek, just in apposition with the second and, in his case, last molar tooth. This suggests the clinical fact that any external source of irritation, as the edge of a tooth or the stem of a tobacco pipe, will often determine the locality of a mucous patch. The irritation of tobacco smoke, or its juice, not only tends towards the development of the mucous patch, but often prevents its healing, indefinitely, under the best treatment.

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[1] Concluded from page 648.

Exudation and accumulation of cells *into the structures of the eye* are occasionally associated with the papular period of syphilis, and from the sensitive character of these tissues, are prone to result in a greater or less degree of inflammatory action. Infiltration of cells and plastic material into the iris sets up an iritis, which is termed syphilitic, but which is said by authorities to be in no way distinguishable from a simple or rheumatic iritis.

When it is remembered that it is the resistance, in other words, the *friction*, that affects the velocity of the blood stream; that the velocity "*is least in the capillaries;*" and, further, that "*contact with tissue and relative rest* of the white or tissue building cells induces *first* to essay their *mobility*, then to *division;*" when, still farther, we consider it is thus evidently the *anatomical hindrances* to the velocity of the circulation in the papillæ cutis that determines the abnormal cell proliferation and accumulation which results in the papular eruption of syphilis, we can then readily understand why the capillary vessels of the eye should become the occasional seat of localized cell accumulation at the time when it is going on in the papillæ cutis. Clinically, we find that this is the case, and that fifty per cent. of all the cases of iritis, from all causes, occur during this period of syphilis. In certain instances, in addition to the plastic exudation into the iris, producing its characteristic interferences with mobility and transparency, the exudation extends in the form of an irregular nodule into the anterior chamber of the eye, sometimes as large as a small pea. This is usually termed the *syphilitic gummy tumor of the iris.* But this gummy tumor is virtually identical, microscopically, with that of the syphilitic papule of the papilla cutis. It is composed, according to Wagner and others, "of colorless blood corpuscles, for the most part cells with a single and large nucleus and free nuclei, which, single or few in number, are imbedded in a connective tissue, poor in vessels."[1] In short, the so-called gummy tumor of the iris would appear to be but a syphilitic papule developed in a locality imposing no restraint, and hence its loose texture and irregular nodular form. Its occurrence at the same period, and its amenability to the same treatment of the syphilitic papular eruption of the skin would seem to give further support to such a view.[2]

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[1] Wagner's General Pathology, American edition, page 434.

[2] Bäumler, Ziemssen's Encyc., vol. iii, p. 224. Von Graefe and Colberg have shown that "punctate deposits occur in syphilitic iritis, — chiefly upon the inferior half of the posterior

Plastic nodules scattered over the choroid are also occasionally met with in this period of syphilis, sometimes quite independently of iritis, and consisting, microscopically, of simple cell elements. A growth of cells, supposed to be of the same character, has been described by Von Hippel "as having been found in the choroidal and sclerotic coats, as well as in the ciliary body, during this period of syphilitic disease." [1] In short, it will be seen that blood capillaries, *in any peripheral location*, may become the seat of the arrest and excessive proliferation of the morbid cell elements at this period of syphilitic infection. Even in the deeper structures, as the bones, and probably from the same causes, points of soreness, and sometimes of bony elevation occur. Pains in the bones are so often met with in the papular stage of syphilis that they are considered characteristic of this stage of the disease. These, while usually complained of as general, will be found to proceed from certain limited points of tenderness, and will be recognized on those bones within easy reach, as the top of the skull and the inner surface of the tibia. Sometimes slight elevations will be discovered. Intra-osseous or sub-periosteal pressure, which would be caused by the deep-seated cell accumulation, will account for the pain, and also the inflammatory action in the cases where it occurs. A simple swelling sometimes results, which may subsequently, through natural causes, become the seat of true bony deposit. It is then called *a node*.

When we consider that not alone are the syphilized or imperfect cells coursing through the ordinary channels of the blood and lymph circulation, but that a migration of individual cells may take place, independently of those channels, into any contiguous living structure, there to establish new foci of proliferation, we shall find but little difficulty in accounting for cell accumulations in curious and rare localities, and, from influences peculiar to such localities, resulting in a great variety of external manifestations. The tendency of all cell accumulations, not necessary to the growth or nutrition of a part, is normally toward spontaneous removal, and return into the general circulation, or by a natural process of fatty degeneration, to be subsequently eliminated. This is especially the case in syphilis, where the accumulations are made up of hastily generated and imperfectly developed cells. Consequently, we find that in the natural history of this disease the cell accumulations in the skin, lymphatic vessels and glands, bones, etc., may disappear entirely in the course of a few months, and if no ulceration has occurred, without leaving any cicatrix, although the site of the papular eruption may be marked by a coppery stain for some time after.

surface of the cornea, or else in the form of a yellowish red papule, from the size of a pin's head to that of a pea, which is usually situated at the margin of the pupil, *and consists of a circumscribed proliferation of cells*," in other words, it represents *a papule*.

[1] Bäumler, Ziemssen's Encyc., vol. iii. p. 224.

Relapses of the accumulations occasionally take place at irregular points, especially in the skin and mucous membranes, evidently from influences of local origin; for these manifestations are never symmetrical, as in the general papular eruption, thus indicating that the exciting causes do not come from the general circulation. It seems most probable that this accident is due to the liberation of still active disease cells from isolated points (inferentially lymphatic glands) which have been for a time separated from the general lymph current by obstructions (in the interior, or of their efferent vessels), from accumulations in the earlier stages of the disease. Such accidents in cancerous disease have led Virchow to the statement that lymphatic glands act as depots for diseased cells, often retaining them for a considerable period without disturbance of the adjoining vessels or structures.[1]

It is well for you to know that syphilitic eruptions of the skin have been elaborately classified by authorities, according to their real or supposed resemblance to the simple diseases of the skin. For purposes of differential diagnosis, it is well for you to be familiar with their similarities and their unlikenesses with such diseases. It is also well that numerous other lesions of syphilis are described by authors with great faithfulness and minuteness as to dates of appearance, locality, and physical peculiarities, etc.; and, as opportunity presents, I shall endeavor to make you familiar with all the phases so described. But I can say to you *now* that the fact of chief importance which concerns you, and which under no circumstances should be lost sight of, is that the manifestations of syphilis occurring throughout the active periods of the disease (which usually lasts from six to eighteen months) *are, without exception, dependent solely upon a localized cell accumulation*, and that the principle of treatment in each and every case must be precisely the same, namely, by the use of such measures, general and local, as are known to be best calculated to assist nature in producing fatty degeneration and elimination from the infected organism of this abnormal, excessive cell accumulation, and at the same time to preserve and improve the general health of the patient.

DERMOID CYST OF THE OVARY.

BY W. H. BAKER, M. D.

THE frequency with which tumors of the ovaries are now operated upon, not only by the few who have become world-renowned thereby, but by the masses of surgeons in every country, makes the report of common cases both tedious and annoying, and adds but little to our real knowledge of the subject. The individual case may, however, be of great interest or importance, on account of some deviation from the usual course in its development, its relations with the surrounding viscera, or some change in the method of operating; or yet again on account of the subsequent treatment and the results obtained. In such instances the failure to report cases is certainly to be regretted, for they may encourage others to establish a like happy result, or warn them against the means which led to a fatal termination.

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[1] Virchow's Cellular Pathology, second American edition, page 221.

It is on this account that it seemed desirable to place on record the following case. We have failed to find an exactly similar one, and feel sure that, while they may exist, they must be rare: —

CASE. The patient was kindly referred by Dr. O. W. Doe to the Free Hospital for Women, where she entered October 3, 1878. She was a native of Scotland, thirty-one years of age, and had been married seven years. There had been but one pregnancy, which occurred about two years after her marriage, and terminated in the birth of a still-born child after a most tedious labor of three days, delivery being finally accomplished by the use of forceps. Menstruation began at thirteen years of age, and occurred irregularly each twenty to twenty-five days, lasting three days. She always suffered from dysmenorrhœa, with the exception of which she considered herself well until the birth of her child; but since this she has been confined to the bed much of the time.

On her admission to the hospital she complained of great pain in the back, confined to the sacral region, of profuse leucorrhœal discharge, of general debility, and of but partial retentive power over the bowels. There was also an inability to sleep comfortably on the right side, on account of pain thus caused in the inguinal region of that side.

Physical examination revealed a laceration of the perinæum through the sphincter muscle, cystocele, and a bilateral laceration of the cervix, with great eversion and hyperplasia. There was also a mass in Douglas's pouch which felt not unlike the body of the uterus in a retroflexed position, but there was present such extreme sensitiveness of the uterus, both by the vagina and over the hypogastrium, that it seemed inadvisable to pass the probe until some of this hyperæsthesia should be reduced by the hot vaginal douche. For nearly three weeks the treatment consisted of these hot-water injections, tonics, rest, and a good, nourishing diet. At the end of this time there was much less sensitiveness, and examination with the uterine probe showed the uterus to be anteflexed and three and a half inches deep.

November 7th the patient was etherized for the purpose of determining the character of the mass behind the uterus. The examination then showed the cervix uteri crowded down against the pubic bone, while the uterine body, considerably enlarged, was anteflexed, rising about three inches above the superior border of the symphysis pubis. Behind the uterus was the mass already referred to, which was equal in size to a small cocoa-nut, immovable, quite filling the excavation of the pelvis, and giving indistinct evidence of fluctuation. Selecting the largest needle of the Codman and Shurtleff aspirator, it was inserted into the tumor through the vagina at a point one inch behind the cervix uteri in the median line. Eight ounces of a yellowish fluid were removed, which on standing a few hours became quite thick and caseous, and, subsequently examined by the aid of the microscope, was proved to be the products of a dermoid cyst. At the time that this fluid was flowing through the aspirator its appearance was so like that of pus that we seemed to be dealing with a pelvic abscess; and it was not until a free opening had been made into the cyst and the oily parts of the fluid had begun to collect on the surface that the true nature of the case was determined. In enlarging the opening by the vagina with the bistoury, the peritoneal cavity was opened, and it became necessary either to remove the cyst through the vaginal incision, or in some way to prevent the discharge of the cyst from coming in contact with the peritoneal membrane. It was noticed that the cyst did not collapse after the removal of the fluid, but that its upper part seemed to be adherent to the upper part of the pelvis, particularly on its right side, and to a less extent on the left. This was indicated by the ease with which the probe could be passed into the cavity of the cyst without any obstruction in the directions just mentioned, whereas directed in any other course it apparently came at once in contact with the cyst wall.

It thus seemed most desirable that this vaginal opening should be made permanent to establish a free drainage from the cyst and to facilitate the washing of its interior with disinfecting solutions. The edges of the incised walls of the cyst and vagina were then united by silver wire sutures, after the method described[1] and first practiced by Noeggerath in cases of ovarian cysts.

The patient reacted well, and for two days was kept well under the influence of morphine administered hypodermically. By that time it was thought that union had occurred between the peritoneal surfaces immediately around the incision, and injections of carbolized water into the cavity of the cyst were begun and continued each two hours for nineteen days, the discharge being highly offensive in character, though slight in amount. For sixteen days she suffered from vomiting, diarrhœa, and symptoms of septicæmia, notwithstanding the frequency with which the cyst was washed out; and for twenty days subsequently, these symptoms subsiding, she gained in flesh and strength, and would have been allowed to be up had it not been for the temperature, which ranged from 100° to 102° F. much of the time. The temperature showed a variation of from two to three degrees nearly every day, but did not seem to be particularly affected by the injections into the cyst, although when discontinued for twenty hours, on the 29th of November, the temperature rose, and remained at a higher point (102.5° to 103° F.) for three days than it had reached for a week previously, showing that the frequent washing out of the cyst helped somewhat towards keeping the temperature within the limits indicated. The highest point indicated by the thermometer was 103.3° F. on the tenth day after the operation. The pulse was most of the time between 80 and 100 beats per minute, the highest registration being 115 on the fifth day.

During the first few days following the operation there was considerable abdominal tenderness, particularly over the right iliac region, and pain was nearly always complained of on introducing the long catheter through the vaginal opening into the cyst. The fluid returned from these washings was for a few days abundant in little caseous masses, but soon became but slightly opaque, though highly offensive, and during the latter part of the time somewhat purulent. No hairs were at any time discovered in these washings.

The diet for the first sixteen days consisted solely of milk and beef juice, and was then somewhat increased by eggs and toast, but she was unable to take house diet until the fortieth day after the operation. The medicines used were morphine, champagne, brandy, cinchonidia, and nitrate of pilocarpine. The morphine was employed only during the first few days, when peritonitis was feared. The pilocarpine, in doses of one sixth of a grain, was used on two occasions with good results. Both were given subcutaneously.

December 19th. The patient had gained exceedingly in flesh, and was feeling quite well, but had not been allowed to sit up because of the persistent high temperatures. On account of a severe surgical case under observation at that time, I felt it unwise to have charge of both cases, fearing the septic influences which might be conveyed, and had left the patient entirely to the house surgeon for the ten days immediately preceding the above date, simply hearing from him that she was comfortable and gaining in strength. At that time, however, she was put on the table for a more careful exploration of the cavity of the cyst, to determine, if possible, the cause of the continued elevation of the temperature. The finger detected a sponge-like mass, which, when pressed, caused a free discharge of thick pus from the vaginal opening. By aid of a tenaculum, a mass of hair, about the size of a goose's egg, was drawn down and with some difficulty removed by the vagina. The temperature began to fall almost immediately, and she was able to be up in four days afterwards. Having been taught to wash out the cyst, she was discharged from the hospital, relieved, January 14, 1879, with instructions to attend as an out-patient weekly for applications to the cavity of the cyst.

March 12th, or about two months later, she was readmitted to the hospital, there having appeared in the upper part of the vagina an exceedingly vascular-looking growth, evidently having its origin from the cyst wall, and projecting through the vaginal incision. The next day the patient was etherized, and this proliferation of the cyst wall removed with scissors, it being attached by two small pedicles not over one fourth of an inch in diameter. Its size was about that of a small hen's egg, and it was covered more or less thickly with hairs. The whole interior of the cyst, which was then not larger than the mass removed, was thor-

[1] American Journal of Obstetrics, May, 1869.

oroughly cauterized with the thermo-cautery. A more careful examination of the specimen removed was subsequently made by Dr. Cutler, and it was found to contain a piece of bone and two teeth.

There was no elevation of pulse or temperature following this last operation, and the patient was discharged, cured, so far as the dermoid cyst was concerned, to be readmitted at some future time for operation on the cervix uteri and perinæum. She was seen a few days ago, and there remained but the smallest cavity, the probe entering through the vaginal incision not more than half an inch in any direction.

In reviewing the case, there are some points of interest to be considered, among which may be mentioned that the evidences of adhesions present at the time of operation were not altogether borne out by the subsequent history; and the directions which the probe took to the extreme right and left sides of the cyst when evacuated might perhaps better be accounted for by the presence within of the mass of hair and the proliferation of the cyst wall, which were subsequently removed, and which, while there, prevented collapse of the cyst wall. This being the case, it might have been better originally to enlarge the vaginal incision and make a greater attempt to draw the whole cyst through it, making the operation that of vaginal ovariotomy rather than of evacuation and destruction of the cyst.

The fact also that the temperature was not more quickly affected by the washing out of the cyst is well accounted for by the presence of the mass of hair therein, which held in its meshes a large quantity of purulent fluid, which the injection was powerless thoroughly to remove, and which, remaining there, was continually draining from the hair as from a sponge, and, coming in contact with the cyst wall, tended constantly to keep up the septic influence.

In looking up the literature of the subject of evacuation and subsequent destruction of the cyst wall as a means of curing cases of dermoid cysts, I find comparatively little.

Dr. Peaslee, in his work on ovarian tumors, page 221, refers to a case in which the cyst, ruptured during parturition, discharged by the vagina, and, by the aid of antiseptic and astringent injections, became reduced to the size of a walnut; but as a part of its inner surface was true skin, he failed to destroy it entirely even by the use of caustics.

Dr. John Homans reported some years since in the Boston Medical and Surgical Journal a case of dermoid cyst evacuated through the rectum, in which the drainage of the cyst and its irrigation were accomplished through a catheter for a time, and subsequently through a tube inserted into the cyst, which was thus destroyed, and the patient made a good but rather slow recovery. The special point of interest which made it seem desirable to place on record the case which is the subject of this paper is the application of the method of evacuation and subsequent drainage recommended by Dr. Noeggerath in cases of ovarian tumors, but which was thought to be inapplicable in cases of dermoid cyst on account of the inability to destroy the interior of the cyst. It seems probable, however, that the desired result has been accomplished by the thorough application of the actual cautery to the inner cyst wall, thereby substantiating the supposition of Dr. Peaslee, on page 221 of his work, that the operation of Noeggerath might be made applicable to cases of dermoid cyst of the ovary.

TWO CASES OF CHOREA IN THE KITTEN, WITH AUTOPSIES.

BY JAMES J. PUTNAM, M. D.

Through the courtesy of Mr. D. G. Wilkins I have recently been able to examine the central nervous system of two kittens that almost from their birth had suffered from chorea of the most typical kind. Two others from the same litter had also had the disease, but had been killed. All four, as well as two more that were unaffected, were healthy-looking, well-developed, playful animals, as their mother had been before them. The symptoms were first noticed almost if not quite as soon as the movements of the little creatures began to attract attention at all, and rather increased than diminished in intensity with advancing age. No post-natal cause could be assigned, except that the cellar in which they were born was somewhat damp. The only respect in which the symptoms differed in any way from the classical symptoms of human chorea was that when the kittens (this was true at least of one of them) were held carefully in the arms and caressed, the involuntary movements sometimes ceased for a few minutes. Even the movements of choreic children, however, often diminish greatly under similar conditions. In connection with the least voluntary effort, even that of standing, the picture became characteristic and striking. An unseen tormentor seemed to be making sport of the little beasts. A leg on which one of them was standing, or which it was using in play, would be suddenly twitched a little to one side or backwards; or, while running forward, the animal would suddenly pause and balance backward, even falling on its haunches, as if pulled back by the tail; or it would be thrown suddenly on its side to the ground. The tail and the muscles of the face and of the whiskers were involved, and often the hair all over the body was more or less erected, giving the skin a tumbled look, as if the animal had recently received a ducking. The heart was not auscultated.

One of the animals was killed when about one month old, the other a few weeks later. In the case of the former the spinal cord was first divided, under ether, in the dorsal region, to see if the movements persisted, as Chauveau has said of the dog, for the parts behind the section.

The kitten was allowed to recover fully from the ether, and was shortly afterwards killed, no choreic movements having shown themselves, either spontaneously or in connection with the reflex contractions which were readily excited in the hind legs. Possibly they might have appeared had a longer time been allowed to elapse. The hearts of both kittens were carefully examined for endocarditis, but none was present. The cords and brains were hardened in Müller's fluid. Subsequent microscopic examination failed to reveal any abnormal changes in the brain, cerebellum, medulla oblongata, or cord of either case. It was not thought necessary to examine the entire specimen piecemeal; sections were made from many parts of the cord and brain, including the cerebral ganglia and parietal cortex and the cerebellum. In the younger kitten the blood-vessels were everywhere injected, often crowded with blood, but there was no trace of the escape of leucocytes, as described by Drs. Gowers and Sankey in their interesting paper upon the Pathological Anatomy of Canine Chorea.[1] It was thought possible that this injection, which was mainly confined to the capillaries and veins, had been due to the effects of the operation on the spinal cord, combined with the struggles of the animal at the moment of death, which was brought about by hyper-etherization in an air-tight jar.

The blood-vessels of the other kitten, however, which was killed in the same way, were not even injected, except slightly here and there, as under normal conditions. The ganglion cells in the spinal cord, as well as those in the brain, of the younger kitten — that in which the injection was observed — failed to imbibe the staining fluids, and even in glycerine they could not be satisfactorily studied. Nothing, however, could be more perfectly healthy to all appearance than the ganglion cells in the case of the second, the older kitten, both in all parts of the spinal cord, the medulla oblongata, the cerebellum, and the brain. Nothing suggesting embolism could be found in either case.

It is plain that the pathological lesion of animal as well as of human chorea, if, indeed, there is any single, characteristic lesion, has yet to be discovered. In one of the cases of Gowers and Sankey extensive changes were indeed present, in the form, mainly, of deposits or extravasations of lymphoid cells, widely disseminated through the central nervous system, and associated with alterations in the nerve elements. In this case, however, the symptoms, especially the presence of profound cutaneous anæsthesia, suggest that something more than simple chorea had been active as a cause. In the other case certain changes were seen in the ganglion cells of the cord, but their interpretation is made more difficult by the fact they were more widely disseminated than the distribution of the symptoms, which were confined to one fore leg, would seem to warrant.

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[1] Medico-Chirurgical Transactions, vol. lx.

It is probable that we shall have to acquire more exact *a priori* notions respecting the physiology of the nervous centres, as, for example, through such researches as those of Hughlings Jackson, before we can succeed in turning these discrepant pathological observations to good account.

RECENT PROGRESS IN OPHTHALMOLOGY.

BY O. F. WADSWORTH, M. D.

Theory and Treatment of Glaucoma. — In an article on iridectomy and sclerotomy in glaucoma,[1] Mauthner put the question whether, in glaucoma simplex and chronic inflammatory glaucoma, when an individual is still capable of work, although central or peripheral vision, or both, have suffered severely, it is allowable to subject him to an operation (iridectomy) which may lead quickly to destruction of sight. He returns to the subject,[2] and answers the question in the negative, rejecting iridectomy absolutely in many cases in favor of sclerotomy. There is no attempt to support any theory of the action of sclerotomy; indeed, he avows that he understands the action of the one operation as little as of the other; but the opinion is based on his own experience, since he has not seen such bad results after sclerotomy as after iridectomy.

The immediate bad results after iridectomy may be attributed either to the disease itself, independently of the operation; to the optical effect of the operation, the coloboma causing a diminution of vision, specially marked when astigmatism, regular or irregular, existed previously or has been caused by the wound, incarceration of iris, etc.; or, finally, to a harmful effect of the operation on the course of the disease.

Of seventeen eyes affected with chronic glaucoma, mostly glaucoma simplex, and which possessed vision before operation, in only three was vision improved by iridectomy; in five it remained stationary, but in three of these only by the help of cylinder glasses or tattooing; while in eight it was lessened, and in five of these eight cases vision that had enabled the patients to work was rendered useless. In all the iridectomy was done upward. Nor did the decrease of vision depend on non-effect of the operation in reducing tension, for in only one of the cases tension remained high.

The poor results obtained from iridectomy led to the empirical trial of sclerotomy. There was sufficient encouragement in the facts that no satisfactory explanation of the benefit of excision of the iris has been given, and that many cases have been observed in which a very far from properly performed excision has sufficed to cure glaucoma, — even an excision only of a bit of the sphincter, or of the periphery with the sphincter left intact and with the section wholly in the cornea. The less prominent the inflammatory symptoms, the more necessary has complete removal of the iris up to the ciliary border been considered. Yet in that one of the seventeen cases of chronic glaucoma related by Mauthner in which vision was most improved by operation, a case absolutely without inflammatory symptoms or pain, on account of the unruly behavior of the patient only a small piece of the iris was removed, the sphincter remaining intact. From such facts it appears that excision of the iris is not necessary to cure glaucoma.

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[1] Wiener med. Wochenschrift, 27–30, 1877.

[2] Archives of Ophthalmology and Otology, vii. 179.

The sclerotomy advised follows closely that proposed by De Wecker: previous instillation of a one per cent. solution of eserine, puncture and counter-puncture with a Graefe's knife, as if for a scleral flap two mm. or more in height, the flap not to be completed, but a narrow bridge of sclera left in the centre. Nineteen cases of sclerotomy are given. The results were better than those obtained by iridectomy. Some of these cases were specially noteworthy because the defect of the field already had approached very closely the point of fixation. The hazardous sequences of iridectomy in such eyes Von Graefe long ago pointed out, but only for glaucoma in myopic eyes. Others, however, and Mauthner himself, had witnessed bad effects follow iridectomy when such defect of the field existed in eyes not myopic.

Iridectomy should be unconditionally replaced by sclerotomy in (1) the so-called prodromal stages of glaucoma, that is, where between the inflammatory attacks the function is intact; (2) glaucoma simplex, with central and peripheral vision almost normal; (3) chronic glaucoma, where the defect of the field has approached very near the point of fixation, even if from one side only; (4) hydrophthalmus; (5) certain forms of secondary glaucoma. The single case of sclerotomy in acute glaucoma given shows that this operation may be practicable and efficient here also.

In a later paper[1] Mauthner discusses the symptoms and nature of glaucoma. He takes strong ground against the theory that increased tension is the cause of the excavation of the disc, or that this is a necessary accompaniment of glaucoma. The rule is that excavation is wanting in glaucoma hæmorrhagicum, where increase of tension reaches its highest degree; it is hardly to be expected at the beginning of acute glaucoma; but also in simple and chronic inflammatory glaucoma the evidence of Von Graefe, Mooren, Schweigger, and cases of his own show that it may be absent, spite of persistent increased pressure. To invoke an increased resistance of the lamina cribosa in explanation of such cases is a pure assumption, unsupported by any proof. If pressure alone were the cause, many symptoms of excavation ought to be found at the entrance of the optic nerve, even if the lamina cribosa did not yield. Moreover, when the beginning of excavation is seen, pressure is frequently not increased.

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[1] Archives of Ophthalmology, viii. 1.

Unfortunately, no eye has been examined anatomically in which a typical excavation had been demonstrated by the ophthalmoscope, and the function of the eye, even in diminished degree, had been preserved. But all anatomical examinations of glaucomatous eyes in which the layer of nerve fibres has been preserved give, although the lamina cribosa has yielded, only the picture of a partial funnel-shaped depression. So long as the function is preserved Mauthner believes that the ophthalmoscopic appearance of a depression reaching to the edge of the nerve is deceptive. He supposes that a morbid process causes diminished power of resistance in the lamina cribosa, and at the same time softening and absorption of the connective tissue of the papilla, and this allows the vessels to sink back into the head of the nerve, and appear as if pressed against the sclera. Meanwhile, the transparent nerve fibres retain their function, but are invisible. In support of the theory of an inflammatory condition about the disc are the convolutions of fine vessels sometimes seen at the bottom of an excavation, and which are to be regarded as new formations, the new-formed tissue occasionally covering the floor of old excavations, and the peculiar yellowish "glaucomatous ring" around the disc, due without doubt to exudation. But the chief objection to the view that the glaucomatous excavation is due to pressure is found in the consideration of the functional disturbances. The great differences in the amount of the amblyopia and the extent and position of the defect in the field are inconsistent with the idea of an interruption of the conductibility of the nerve fibres by pressure. Especially is this the case when, with precisely similar excavations in the eyes of the same person, the vision of the two eyes shows the greatest contrast. Nor is there more in favor of the interruption of the blood current. Though this might be regarded as an important element in certain cases of acute glaucoma, it would certainly be out of the question in glaucoma simplex, where abnormal tension is frequently slight or doubtful, arterial pulsation is generally absent, and the usual distribution of vessels in the periphery of the retina may be seen. The affection of the sense of light, which is usually diminished in developed glaucoma, and even may be an early symptom, points to a disturbance from the choroid of the perceptive elements of the retina rather than to interference with the nerve-fibre layer. So the comparative preservation of the perception of color is against atrophy of the nerve fibres. Finally, there are cases in which after pressure has been reduced to the normal by iridectomy vision declines abruptly, and others in which glaucoma is cured, as it seems permanently, by iridectomy, while tension remains high.

In opposition to Schnabel,[1] Mauthner holds that in acute glaucoma

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JOURNAL, xcvii. 550.

there is inflammation of cornea and iris. Certain symptoms, enlargement of ciliary veins, anæsthesia of cornea, shallowness of anterior chamber, widening and immobility of pupil, *may* be due to pressure, as are certainly the pupillary symptoms which disappear after sclerotomy. But these do not indicate the nature of the glaucomatous process, since they are all absent in true glaucoma simplex. Indeed, many processes beginning with great increase of pressure and the usual accompanying symptoms observed in cornea and iris are very different from glaucoma, and among these is to be placed glaucoma hæmorrhagicum.

Glaucoma is a choroiditis, often complicated with inflammatory symptoms in the anterior segment of the globe, starting in various parts of the choroid, and thus affecting the retina at various points, commencing as a rule, with increase of tension, but also progressing without this, and causing, though not always, the development of an affection of the optic nerve. The great differences which exist in the symptoms depend upon the situation, extent, intensity, and course of the disease. The functional disturbance is caused by injury done by the choroiditis to the perceptive (posterior) elements of the retina. Increase of tension and involvement of the optic nerve may hasten but are not the cause or beginning of blindness. This ensues with marked excavation even without pressure, or with increased pressure without excavation, and it follows that there must be real glaucomatous processes which lead to blindness without either increase of pressure or excavation.

The morbid process in question cannot be remotely connected with choroiditis serosa; it does not at first lead to remarkable alterations, at least in the fundus of the eye, but an indication of it is to be seen in the delicate alterations of the pigment epithelium. Atrophy of the choroid and of the ciliary muscle, which have often been proven by the microscope, are the result, not the cause, of the process.

Vision and Color Sense of the Nubians. — In the absence of exact information it has been generally assumed that uncivilized races possess excellent vision. The result of examination of eleven Nubians by Cohn[1] goes to support this assumption. Two were women; of these one had but little better vision than that taken as the normal standard for Europeans. The other woman and all the men had about double the normal vision; one considerably more than this, even. One only, a priest, who had studied Arabic for nine years and read much, was myopic (1.5 D); he had formerly seen well in the distance. This man furnishes an example of acquired myopia where there is no reason for supposing any hereditary tendency.

The examination of the color sense of these people is interesting from its bearing on the controversy which has existed the past few years as to whether the ancients were partially color-blind. As is known, Glad-

[1] Centralblatt für Augenheilkunde, 1879, page 197.

stone, Magnus, and others have insisted that the Greeks and other nations were color-blind, from the fact that they had but few words to express color, and employed the same word to denote different colors. The Nubians were found to have but few words denoting colors, and for some colors used two or three words indifferently, while for green and blue they used the same word. Holmgren's worsteds, however, they sorted with the greatest accuracy, showing plainly that only the means of verbal expression was lacking, but their color sense was quite equal to the standard of modern civilization. The same state of things was observed by Virchow in some other Nubians in Berlin; and he also in the case of eight Laplanders[1] found imperfect verbal distinction of color with perfect color sense. Dr. Alenquist,[2] it appears, further, found in the people living at the east cape of Siberia a color sense like that of Europeans.

PROCEEDINGS OF THE BOSTON SOCIETY FOR MEDICAL IMPROVEMENT.

E. G. CUTLER, M. D., SECRETARY.

DECEMBER 23, 1878. *Stricture of the Œsophagus.* — DR. HODGES showed a specimen of stricture of the œsophagus of many years' standing and related the case. The patient died at the age of eighty-three, and from her seventeenth year had been unable to swallow solid food. She was at one time a patient of Mr. Abernethy, also of Dr. J. C. Warren and Dr. James Jackson, all of whom at different times for long periods used to pass œsophageal bougies. For many years the patient had had little treatment locally, however, till within two years, when Dr. Hodges persuaded her to allow him to pass the œsophageal bougie. One of the smallest size was passed first without difficulty, next a medium-sized one, and lastly the largest one, which latter caused considerable pain, and was followed by a mouthful of blood. The patient then ate and swallowed as well as anybody for nearly two years, until within a few weeks, when she commenced to regurgitate food, and gradually failed, with vomiting her food. At the autopsy, performed by Dr. E. G. Cutler, there was found to be a cicatricial stricture of the œsophagus at the commencement of the organ just behind the cricoid cartilage. Cancer was also found at the lower end of the œsophagus, covering a space an inch and a half in diameter; it was ulcerated, and had produced a slight diminution of the calibre. The other organs were not diseased. — In commenting on the case, DR. JACKSON said that he had never seen a specimen of simple stricture of the œsophagus but once before. In all the others there had been malignant disease of the same.

Leprosy. — DR. WHITE, having collected many facts in regard to leprosy in the United States, gave a brief *résumé* of the subject. A full report will appear in the proceedings of another society.

Probable Acute Nephritis. — DR. ELLIS reported the case as follows: —

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[1] Centralblatt für Augenheilkunde, 1879, page 275.

[2] Idem.

A woman sixty-six years old, who had always enjoyed good health, was attacked in the latter part of November with severe coryza, followed by inflammation of the middle ear, for which Dr. C. J. Blake punctured the drum. The operation was followed by a discharge of pus, and after a time by relief. On December 4th there was nausea and vomiting, which persisted on the 5th, when there was so much debility that Dr. Blake advised the family to send for me. The patient when first seen lay on the outside of the bed, dressed, evidently feeble, but no symptoms were mentioned, except the nausea and vomiting, which were the only evidence of disturbance of the stomach. The pulse was 104. The temperature was 103° F. She was ordered to take quinine and brandy, with small quantities of strong beef tea frequently repeated. On the following morning, the 6th, she was in bed, in a peculiar apathetic state, though conscious and smiling on being spoken to. She articulated with great difficulty, but at times distinctly, giving directions about certain matters which interested her before she took to her bed. She had vomited but once. The pulse was strong and regular. There was some flushing of the face, attributable apparently to the stimulants. During the day she vomited four or five times and had three loose dejections. That night she slept sufficiently well, waking to take nourishment, which was still given in small quantities. In the morning of the 7th she seemed a little brighter, but there was the same look of apathy and the same difficulty in articulating. The pulse was 88. The temperature 102.5° F. During the day she had six loose yellow dejections, in the evening involuntary. These attracted attention, as early in the case it was ascertained that a broken drain in the cellar had allowed the escape of gas into the house. but no rose spots were found, nor other signs of abdominal disease. On the morning of the 8th she was seen in consultation by Dr. Minot. The apathy was more marked; the pupils were considerably dilated and quite sluggish on exposure to light. The pulse was 96, and the temperature 103° F. Towards the middle of the day the pulse increased in rapidity, and at half past five P. M. it was 128, while the temperature fell to 101½° F. There was apparently less consciousness, though she still seemed to recognize those about her. The respiration had gradually increased in frequency, and at this time was 52. Soon after the patient was first seen the kidneys were suspected as a possible cause of the vomiting, and the urine was asked for, but none could be obtained until the evening of the 7th. This was examined by Dr. E. G. Cutler, with the following result: The reaction was acid. The urea, chlorides, and earthy phosphates were normal. Considerable albumen was found. Under the microscope there was a large number of pus corpuscles and flat epithelium cells, coarsely and finely granular and hyaline casts in large numbers, and some round epithelium, probably renal. This information was obtained at noon on the 8th. From this time the pulse and respiration became more and more rapid; she was drowsy, but at six P. M. recognized and kissed her little grandson. She continued to take nourishment till the morning of the 9th; at this time the face and both feet were œdematous, but nothing of the kind had been noticed before, though attention had been paid to the point. At eight A. M. the pulse was hardly perceptible, and she died at half past nine. The expression of the face, though generally dull and indifferent, would change to a smile when she was spoken to. Nothing like coma was noticed until near the end. There was at no time pain in the head or paralysis, except, perhaps, a slight doubtful deviation of the mouth during the last day of her life. The lungs were examined a number of times without any signs of disease being found. The disturbance of the cerebral functions excited the closest scrutiny, as the otitis suggested the possibility of meningitis, but the symptoms were not such as to warrant the diagnosis of the latter. The examination of the urine furnished unquestionable evidence of renal disease, and nothing in the previous history of the case pointed to a chronic affection. A positive structural change of the kidneys was not demonstrated by an autopsy, but the albumen casts, troublesome nausea, and the œdema at the close make it probable that this was one of the insidious cases of acute nephritis, of which but few have been reported. The great importance of calling attention to such is a sufficient reason for publishing this, though imperfect and far from conclusive.

Abdominal Tumor. — DR. J. HOMANS reported the operation, which was an exploratory incision five inches long into the abdominal sac under the carbolic spray. Forty pounds of ascitic fluid were let out, and a solid lobulated tumor was found attached very firmly to the sacrum, ileum, and uterus. Nothing further was attempted, and the wound was closed in the usual manner, and the antiseptic dressing was applied. Union was by first intention, no pain or tenderness was felt, and no opiate was required. The stitches were removed the fifth day, and the patient did well.

Abscess of the Liver. — DR. KNIGHT reported the case. The sickness began in January, 1878, with pain in the right lumbar region, followed by pain in the shoulder and arm, which continued. In May, pain in the nipple and right shoulder-blade came on, so severe that the patient had to be carried home; in a week, however, he got out. The 10th of June, one month later, he commenced to cough up large amounts of bloody pus; this continued till last September, when he was seen by Dr. Knight. The pus was submitted to Dr. E. G. Cutler for microscopic examination, and he discovered unequivocal hepatic cells in it after a long and most careful search. On the supposition that he had disease of the lung, he had been riding horseback and exercising. Complete rest caused immediate improvement, and in five weeks he was perfectly well. Dr. Knight referred to a very good article in a recent number of the *New York Medical Journal* on Abscess of the Liver, by Dr. Davis.

Anchylosis of the Vertebræ following Gonorrhœal Rheumatism. — DR. BRADFORD reported the case. The patient, thirty years old, of healthy appearance, had gonorrhœa several times, each attack being followed by rheumatism, which, however, was not severe, until after the last attack of gonorrhœa, three years ago. At this time there was a severe rheumatic affection of each knee. The knees were flexed and held stiff, and remained so for six months. The back soon became rigid and painful. The patient was bedridden for some time, but subsequently became able to go about. On examination, his back was found arched considerably, so that he appeared quite round-shouldered and bent forward. The spine was perfectly inflexible, there being no motion from the seventh cervical vertebra to the sacrum. In stooping, all motion was at the hip-joints, the back moving as if the spine from the seventh cervical to the sacrum was one bone. The chest could not be expanded, the ribs being anchylosed with the vertebræ. The breathing was therefore diaphragmatic. No one vertebra projected; there was no pain or tenderness, though the patient complained of stiffness in his back, and pain if he attempted to lift a heavy weight. He was unable to carry anything very heavy. There was no stiffness in the knees or in any of the other joints. The patient was able to work.

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KLEIN AND SMITH'S HISTOLOGY.[1]

AMONG the merits of this excellent work we must not forget to place the punctuality with which it appears. Three numbers have come out since our last notice. Part VI. is devoted to the spinal cord, the optic nerve, and the brain. Klein's remarks on the neuroglia of the cord deserve to be transcribed almost without abbreviation. "The chief part of the frame-work is a semifluid substance (neuroglia matrix), which under certain reagents (chromates) presents a granular aspect, but in the fresh state and with other reagents is quite homogeneous. This substance fills all the interstices between the nervous elements of the cord.

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[1] *Atlas of Histology.* By E. KLEIN, M. D., and E. NOBLE SMITH, L. R. C. P. Parts VI., VII., and VIII. Philadelphia: J. B. Lippincott & Co. 1879.

"In this homogeneous matrix are imbedded very numerous fibrils, neuroglia fibrils, which anastomose with one another in a net-work. These fibrils are in chemical respects similar to elastic fibrils, although they are not so resistent against acids and alkalies.

"In connection with the network of neuroglia fibrils we find flattened, branched, nucleated connective-tissue corpuscles; the processes of these lose themselves amongst the former.

"Neuroglia matrix, neuroglia fibrils, and branched cells form the 'neuroglia.' These three substances have a definite relation to one another: the greater the amount of one, the greater is also that of the other two."

The discussion of the relations of the nerve cells in the gray matter of the cord is very interesting, but we are not aware that it contains anything new. The article on the optic nerve is valuable chiefly on account of the description of lymph spaces between the sheaths, a knowledge of which is of great importance to students of the eye. We are sorry to find nothing on the vexed question of the decussation of the fibres in the chiasma. The brain is treated more fully than we should expect in a work of this nature. The writer generally follows Meynert. Part VII. is also very interesting; containing remarks on the ganglia of the cerebro-spinal and sympathetic systems, and on the terminations of nerves. The illustrations are admirable; especially those of the ganglion cells, some of which have the spiral fibre, and of the nerves of the cornea. We cannot, in this place, help repeating an expression of regret that the authors say next to nothing of the methods employed. The nerves of unstriped muscle are traced to a fine net-work between the cells, and their further course is left undecided. It is thought not improbable that they end in the nuclei, but not in the nucleoli, as some have maintained. In voluntary muscle the nerve is traced into the muscular fibre at the end plate, and its absolute termination is also left in doubt. Part VIII. is devoted to the vascular system, including capillaries, arteries, veins, and the heart. No special comment is necessary, unless it be in praise of the section on the development of blood-vessels. This part contains also an account of the lymphatic glands.

The work more than fulfills its original promise. It is the finest of the kind that we know. T. D.

HYGIENE AND PUBLIC HEALTH.[1]

The first volume of the series of Ziemssen's Cyclopædia relating to the subject of public health was omitted from the American translation, and this decision, as the editor informs us, was based chiefly on the fact "that the book, though excellent in all other respects, treats the subject almost entirely from a German stand-point, and takes cognizance of a state of things very materially different from that which exists in this country. It was believed, however, that a treatise on private and public hygiene, written with special reference to the different climates, conditions of soil, habitations, modes of life, and laws of the United States, would meet with favor, not only among the subscribers to Ziemssen's Cylcopædia and physicians generally, but also among all educated classes." These sentences give clearly enough the *raison d'être*, the aim, and scope of this work, which presents itself in two handsome volumes of about eight hundred and six hundred and fifty pages respectively. The first volume is begun by an able introduction from the pen of Dr. John S. Billings, of Washington, the larger part of which is devoted to the Jurisprudence of Hygiene, under which head are discussed the formation and functions of boards of health, systems of quarantine, and kindred important subjects. The volume is divided into Part First, which treats of Individual Hygiene, and Part Second, which treats of Habitations. Under Individual Hygiene are articles on Infant Hygiene, Food and Drink, Drinking Water and Public Water Supplies, Physical Exercise, and the Care of the Person. Under Habitations we have articles on Soil and Water, the Atmosphere, and General Principles of Hospital Construction.

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[1] *A Treatise on Hygiene and Public Health.* Edited by Albert H. Buck, M. D., American Editor of Ziemssen's Cyclopædia of the Practice of Medicine, etc., etc. Two volumes. New York: William Wood & Co. 1879.

The second volume is also divided into two parts, the first being devoted to Occupation, and the second to Public Health. Occupation is dealt with in five different papers, on the Hygiene of Occupation, the Hygiene of Camps, the Hygiene of the Naval and Merchant Marine, Hygiene of Coal Mines, and the Hygiene of Metal Mines.

Public Health, which forms Part Second, is developed in eleven papers, among which are two articles on Quarantine, one treating the subject exclusively as relating to sea-port towns, and the other to Inland Quarantine. These articles are both worthy of attention at the present time, but the former especially so, as embodying the conclusions of Dr. Vanderpoel, the very efficient health officer of the port of New York.

The names of the editor and of the majority of the contributors, who are drawn from various parts of the country, are a sufficient guaranty of the excellence of this work, the scope of which we have thought we could best exhibit to our readers by giving the titles of the subjects discussed.

The latest accepted theories and conclusions are embodied in the treatment of the various subjects, but in regard to many of these our knowledge is still in its earliest infancy; what is accepted to-day is doubted to-morrow, and rejected the next day, as it were. The eager labor and thought of so many keen minds as are now devoting their energies to these important topics cannot fail to make necessary within a short time a new edition of the work, and even the rewriting of some of the articles, good as they now are.

DOWSE ON SYPHILIS OF THE BRAIN AND SPINAL CORD.[1]

A TITLE-PAGE, largely devoted to the titles of the writer, and a dedication to Wm. A. Hammond, M. D., introduce us to a cheap-looking volume, the material composition of which reflects no credit upon the house by which it is published. The preface, however, is concise and sensible. The style of the writer is quaintly mediæval, often confused and involved, and frequently not in accord with grammatical rules. The cases quoted show, on the other hand, careful observation and extended experience; and certain conclusions, possibly erroneous, seem to arise more especially from illogical induction. The original wood-cuts and Woodbury-types which illustrate the book are of inferior quality, while some excellent chromo-lithographs are not original. Good indexes to subjects and cases conclude the work, though an extensive bibliography of the literary productions of the author upon all subjects might well have been omitted. The treatise is subdivided into chapters devoted respectively to History and Nature, Diagnosis, Treatment, Pathology, with two quite readable chapters upon Hereditary Syphilis and Syphilitic Epilepsy. The chapter on History and Nature contains nothing new. Its nomenclature also is not strictly correct, neither a "psoriatic syphilis" nor a "syphilitic psoriasis" existing in nature any more than a bovine horse, or an equine, — call it bull, not ox. Under Diagnosis, the writer calls attention to "cerebral syphilis, where the exciting cause has been venereal excesses, over-study, mental anxiety, worry, and even fright." Dr. Dowse's views on treatment are sound and judicious, except that he apparently recommends constitutional treatment when nothing but the primary lesion is present, — a course disapproved of at present by the best authorities. He lays stress upon the absolute necessity of a thorough mercurial course in the early stages of the disease, "for an incomplete, hesitating treatment of external syphilis specially predisposes to subsequent affections of the nervous system." Under Pathology, we note that "in over one thousand cases of post-mortem examinations of the brain it was noticeable in how small a number the disease appeared to originate in the under layer of the periosteum of the endocranium."

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[1] *Dowse on Syphilis of the Brain and Spinal Cord.* By THOMAS STRETCH DOWSE, M. D., etc., etc. New York: G. P. Putnam's Sons. 1879. Octavo, cloth. Pp. 142.

◆

BROWN'S AIDS TO ANATOMY.[1]

We are unwilling to give praise to short cuts to knowledge, and such is certainly the little work before us. On the other hand, there is a good deal about it that we like. If it be used as it should be, that is as a guide to dissection and study, we think it may be very useful. It is largely devoted to the relation of parts in important regions.

◆

TRANSACTIONS OF THE NEW YORK OBSTETRICAL SOCIETY.[2]

The transactions of this society have appeared from time to time in the *American Journal of Obstetrics.* The present volume is a reprint from that journal, and the result is a collection under one cover of a number of valuable papers and interesting discussions which have heretofore existed only in the pages of a quarterly journal. A list of the Fellows of the society from its foundation has also been added.

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[1] *Aids to Anatomy.* By George Brown, M. R. C. S. Fourth Thousand. New York: G. P. Putnam's Sons. 1879.

[2] *Transactions of the New York Obstetrical Society for the Years* 1876, 1877, *and* 1878. Vol. i. Pp. 500.

DR. LYON PLAYFAIR ON PUBLIC HEALTH.

The management of the Lowell Institute, with that active and judicious regard for its instruction to which the public of Boston has grown accustomed, secured for us the advantages of two lectures from Dr. Lyon Playfair, of England, during his recent sojourn amongst us. Both of these lectures were of much interest in their respective fields. The subject of the first was the Inosculation of the Arts and Sciences, and in this our learned visitor endeavored, as far as was possible in the short time allowed him, to bring before his audience the true relations and interdependence of the arts and sciences, emphasizing the fact "that in reality the arts is one of the parents of the sciences," and reminding his hearers that the expression "Science is the mother of the arts," which we are accustomed to use and to hear, took its rise in a late and developed state of the arts. Science was defined as "the accumulated conceptions resulting from the effect of reason upon the observations made upon the arts; and these conceptions of nature are what we term science." Occasion was taken to pay a well-merited compliment to our Institute of Technology. It is, however, with the second lecture, upon the Public Health, that we are more immediately concerned. Public health as exhibited in past and present social conditions and surroundings was used as a forcible illustration of the speaker's previous position, to show "how experience leads to science, and how science when produced throws much light upon the arts which experience has produced."

We hardly need any reminder of Dr. Playfair's eminent right and fitness to speak with authority and to command attention in regard to hygiene. An early technical training as a student and teacher of chemistry, and a subsequent constant connection in one form or another with sanitary legislation in Great Britain, since its early development in a royal commission, appointed by Sir Robert Peel to examine into the causes of death in the great towns and populous districts of England, down to the present time, present him to us, indeed, as a veteran, an enthusiastic, and, at the same time, an intelligent sanitary reformer. From the lips of such an apostle professional men are always glad to receive afresh the gospel of public health, and it is fortunate for the laity at large when such a one feels the inspiration to become an evangelist. It would seem hardly possible that the most indifferent or ignorant should refuse interest and coöperation when the whole law and gospel of hygiene is summed up in the short command, "Wash and be clean," but a glance at the irregular progress and even positive retrogression in the culture of public and private health, as exemplified by a short review of various peoples and countries at different periods, quickly calms any too enthusiastic hopes. It is almost discouraging when we reflect how much filth and how many bad smells have flourished with impunity since Ulysses gave scientific directions for the purging and disinfection of his house after the slaughter of his wife's admirers, — directions which for simplicity and thoroughness could hardly be improved upon. Still progress is made; the Elizabethan nastinesses have certainly been left far behind, and we have even reached the point where the first requisite for a habitation is not that it should be vast, impressive, or even beautiful, but well drained. This is something, though Dr. B. W. Richardson's ideal sanitary city may be still in the distant future.

We are glad Dr. Playfair took occasion to say a word to his hearers about the burial of the dead, and to recommend the light, open wicker-work baskets to their mortuary consideration. Cremation certainly may be difficult of application for our very large cities, and the wicker-work, with its quick reduction and comparatively slight shock to the sensibilities, resulting from long custom, offers a happy compromise between our present mode of burial and cremation.

It is not easy to wean people from long-established prejudices touching such subjects, nor do we underestimate the opposition of those who are interested in the continued use of the present ponderous and unhygienic coffins and caskets. We chanced to be in London a number of years ago when the use of wicker-work for burials was first suggested. This reform was strongly advocated by a medical man, the friend of a well-known duke. The noble lord gave a garden party, to which the fashionable world was bidden that it might inspect various styles of basket coffins, and become impressed with their advantages. The guild of undertakers was greatly agitated ; but even such an impulse did not change the fashion, and we continue to sacrifice reason to prejudice and to be buried as were our forefathers. Dr. Playfair is so full of his subject that we could have wished there had been time, after bringing the old dispensation of public health so happily before us, to treat at some length of the new dispensation, and this we hope is only postponed for another visit, when even his gentle remonstrance with our drainage and our river will be unnecessary. Of sound sense in a really interesting and popular form on matters pertaining to the public health we cannot have too much.

THE CONFERENCE OF HEALTH BOARDS AT NASHVILLE.

We take great pleasure in calling attention to the circular of the National Board of Health, which we publish to-day, and in urging all persons interested in sanitary science to benefit, if possible, by the opportunity of being present at the Nashville meeting. The Boston Board of Health will send a delegate, and we hope every other in the State will do the same. The secretary of the State Board will also go. So far as the National Board of Health is concerned, the immediate object of the proposed conference is to assist them in getting the views of sanitarians with reference to the permanent organization of the board, and their relation to state and municipal boards. It is not proper that we should anticipate the final report to Congress upon this subject, or give our views in detail upon a matter with which we have so little familiarity as maritime and inland quarantine ; but we do desire to add our testimony to the great value of the work which has been already done by the National Board of Health, and to repeat the opinion, which we have already expressed, that the money which they have expended is the merest trifle in comparison with the good that has come from it in preventing a general epidemic of yellow fever. Doubtless, the organization of the board is far from perfect, but we are not familiar enough with its operations to suggest what changes might be made to advantage, and we are satisfied to judge them by what they have done, and by their plans for the future.

First, as to what they have done. They have "boxed up" yellow fever in Memphis, this year, and have "stamped it out" in several places where it threatened to make its epidemic appearance. They are making careful investigations, under competent persons, into the causes of yellow fever in Cuba, and the means of preventing its importation into the United States; the best method of determining impurities in the air; the use of disinfectants with reference to the destruction of the "germs" of disease; the composition and merits of patent disinfectants; the prevalence of adulteration in food and drugs; the diseases of food producing animals in this country; the character of water supplies in relation to yellow fever; the size, grade, and efficiency of sewers in various cities; beside a sanitary survey of the New Jersey shore bordering on New York harbor, a digest of the statutes and decisions of the courts on points involving questions of public hygiene, a collection of opinions of prominent sanitarians and boards of health as to the proper form of a permanent national health and quarantine organization, and an inquiry into the condition of the mercantile marine for the purpose of suggesting legislation to protect the health of sailors. A most important undertaking is their house-to-house examination of Memphis, to prepare for a thorough report upon its sanitary condition, by which they hope to suggest measures to make yellow fever a thing of the past in that ill-fated city. The *National Board of Health Bulletin* is looked for each week all over the country as containing important information to be got nowhere else.

Having said this much with regard to the work of a board that has been in existence less than three quarters of a year, we purpose letting our readers have a chance to breathe before speaking of a future abounding in such vast plans. That there will be a future of great usefulness to the country and the world no reasonable man can doubt. In the mean time, let no one who can do so fail to avail himself of the extremely generous facilities offered by the Southern railroads to make the Nashville meeting a large one.

MEDICAL NOTES.

— In strong contrast with his advocacy of chloroform in his controversy with this JOURNAL, in 1870, the editor of the *British Medical Journal* now says (October 25, 1879, page 667), "The reasons why chloroform is considered the best anæsthetic, in the face of the numerous fatalities which attend it, and the reputed greater safety of ether, are not apparent on the surface." *Innominatus*, who bore the brunt of the controversy alluded to, congratulates the profession on this important accession to the cause of science and humanity.

— Dr. E. S. Gaillard, editor of the *Richmond and Louisville Medical Journal* and the *American Medical Biweekly*, has severed his connection with the Louisville Medical College, and removed to New York, in which city he will continue the publication of his live journals. — Dr. Ritter von Riedel heretofore assistant in Professor Späth's clinic, has been appointed body-physician to the future queen of Spain. — Dr. Dévergie, the distinguished French authority in medical jurisprudence, and writer of a famous work on forensic medicine, is dead.

— The French minister of war has authorized the wearing of spectacles by soldiers on duty, subject to certificates of their necessity, which must be obtained from military surgeons.

— A singular case of "explosion of the scrotum" was recently reported in a Madrid medical journal, and is reproduced in the last number of *Hayem's Journal.* The patient, a forester, somewhat advanced in years, had for two months suffered from an inflammatory affection of the scrotum, attended with considerable swelling, but with little pain or general disturbance. One fine day, as he was seated upon the ground in the forest, with his gun lying by his side, he was startled by a loud detonation. He at first thought his gun had gone off. A glance at the exposed genitals showed that here was the seat of the disaster. The scrotum had burst, and the testes were laid bare. The patient made a good recovery.

This case seems to illustrate the danger of exposing a gangrenous and emphysematous scrotum to the full force of the sun's rays, without heeding the rapidly progressing inflation, which the most elementary knowledge of physics would teach one to expect, according to the principle of the Montgolfier balloon. If any by-standers had been present, as was fortunately not the case, the consequences of the patient's heedless behavior might have been most deplorable.

PHILADELPHIA.

— Professor J. Aitken Meigs, Professor of Physiology and Institutes of Medicine in the Jefferson Medical College, died November 9th at his residence, after a few days' illness. He was in his fiftieth year.

— A death of a child, three years of age, by carbolic acid poisoning was recently investigated by the coroner. Some commercial carbolic acid having been placed in a saucer under a sofa, with the view of driving away moths the infant, in crawling on the floor, found the saucer, and drank some of the poison. Its cries at once attracted the mother's attention, who noticed the stains on the child's face and hands. Medical aid was summoned, but the child almost immediately became collapsed and unconscious, with entire relaxation of the muscular system, weak pulse, and complete inability to swallow. The mouth, throat, chest, and hands were discolored by the acid. Death ensued in seven hours after the accident.

— The English *Veterinary Journal* reports that a staff cook having left some pounds of tea in a sack, a Kaffir groom filled it with corn, and, serving out the contents to a troop of horses, gave Lord William Beresford's charger the bulk of the tea, which was eaten greedily, and produced the most startling results. The animal plunged and kicked and ran backwards, at intervals galloping madly around, finally falling into a donga, where it lay dashing its head on the rocks, and was dispatched by an assegai thrust through the heart. The post-mortem appearances indicate extreme cerebral congestion. The phenomena exhibited were characteristic of the action of caffeine, namely, cerebral excitement, with partial loss of sensibility, convulsion, and death.

SURGICAL CASES AT THE CHILDREN'S HOSPITAL.

SERVICE OF DR. BRADFORD.

[REPORTED BY MR. H. COE.]

Caries of Patella; Purulent Synovitis; Incision into Joint; Death from Shock. — J. C., aged three, was brought to hospital by the Society for Prevention of Cruelty to Children, with a report that a few months before he had fallen and sustained an injury to the knee. At time of entrance the left knee was swollen, with but little tenderness and no heat. Femur not enlarged; tibia on palpation appeared somewhat thickened, with slight tenderness on pressure over the head of tibia; patella quite movable; leg held slightly flexed; sinus just below the patella over the tubercle of the tibia discharging a serous fluid. A ham splint was applied, and the child kept in bed. A month later the aspirator was used, the needle being inserted directly into the joint in two places. A few drops of serous fluid only were aspirated. The aspiration was not followed by any bad result, not even the elevation of temperature a single degree. A week later a probe was introduced into the sinus, which was found to lead directly down upon the ligamentum patellæ. This track was enlarged, and the sinus found to lead upward to the centre of the patella, and thence downward directly through the patella into the knee-joint, so that a probe passed readily into the joint. It was inferred that a purulent synovitis must exist. An incision was made on both sides of the patella, and two ounces of thick pus were evacuated. A drainage-tube was inserted, and the joint washed out by a solution of carbolic acid, one to forty. The whole operation was done under spray, and the wound dressed with a thorough antiseptic dressing. The child rallied from the operation, though not well, and died twelve hours later with symptoms of shock. On examination it was found that the bones and cartilages of the knee-joint were perfectly sound except the patella, which was perforated by a carious process most extensive on the outer side. The bone was not enlarged. The synovial membrane of the joint was thickened and covered with granulations; the periarticular tissue was thickened and somewhat infiltrated.

The patella was deposited in the Warren Museum.

Wound of Scrotum; Consecutive Abscess of Abdomen; Foreign Body. — F. M., aged seven, fell from a tree, sustaining during the fall a slight punctured wound of the scrotum. Three days after the accident there was a small fluctuating tumor in the right groin, and hernia was suspected. This proved to be an abscess, pointing in the scrotum near the site of the original wound. The abscess was incised in the scrotum, and the child was referred to the hospital by Dr. C. P. Putnam and Dr. J. F. Bush. On entrance a portion of the lower abdominal region was found to be red, hard, and tender directly over the bladder and to the right of the median line. No fluctuation. There was considerable fever; evening temperature 101.5° F., rising the next evening to 103.5° F. The patient complained of pain in the abdomen. The temperature soon fell to normal. The sinus in the scrotum discharged one to two ounces of pus daily. Urine normal. A poultice was applied to the abdomen, and a fortnight after entrance there was marked superficial fluctuation over the vesical region. This was incised, and a few ounces of pus were evacuated. On the next day a piece of cloth of the size of a three-cent piece was removed from the incision into the abscess. This was found to be a small piece of cloth from the trousers worn by the boy at the time of the accident, which had worked up from the scrotum, and had caused the inflammation and abscess of the abdominal wall. The incision and sinus healed rapidly.

Vegetations of Vulva. — M. S., aged five. Patient referred to the hospital by Dr. C. P. Putnam, who a month before had removed a mass of papillary vegetations around the clitoris. These had returned, and at the time of entrance the whole clitoris was involved in a papillary growth of the size of a small walnut; the growth extended to upper surface of the labia majora and portions of the labia minora. The growth presented the ordinary appearance of venereal warts (papilloma). The whole mass was removed by the scissors, and strong nitric acid was applied to the base. The surface healed readily. Two months later no recurrence had taken place. The case is unusual on account of the age of the patient.

Fracture of Thigh. — CASE I. G. S., eighteen months, referred to the hospital by Dr. Holyoke, fell from a chair. Several hours later it was noticed that he could not move the left leg. Fracture of the thigh was recognized, and the child was sent to the hospital. The fracture was found to be at the middle of the femur; the upper fragment tilted somewhat upwards. A Buck's extension was applied; it was, however, found difficult to keep the limb in good position owing to the restlessness of the child, and the patient was placed in an appliance similar to that described by Dr. Hamilton, two straight splints from axillæ to below the feet, and united by a cross-piece of wood at the bottom. Each lower extremity is bandaged to the side splints, and a swathe placed around the child's waist, and side splints. A week later, with the assistance of Dr. W. T. Bull, of New York, a plaster-of-Paris bandage was applied from the ankle to the hip and passing around the body. The child was etherized, and the limb extended by an assistant, counter-extension being made by perineal straps. Four days later the child was seized with measles, but the plaster bandage did not disturb the patient, and it was not removed until later. No excoriations were found under the bandage. The limb was in excellent position. Union was not complete, probably on account of the measles. The child died of diphtheria a few days later.

CASE II. G. M., three years, fracture of middle of the left femur, referred to the hospital by Dr. J. B. Ayer. No displacement of fragment. Marked crepitus, but trochanter rotates on rotating limb. Under ether the diagnosis was verified; the rotation of the trochanter on rotating limb was found to be due to apposition of fragments in a perfectly transverse fracture. The limb was put up in a Buck's extension; this was changed to a Hamilton apparatus. Union was found to be good in three weeks, and a dextrine bandage was applied and worn for a fortnight. The patient was discharged on its removal. The position of the limb was excellent, and the union firm.

CASE III. C. M., three years. Child referred to the hospital with fracture of the middle of left thigh. The patient was not brought to the hospital until two weeks after the fracture. There was at the time of entrance partial union, but slight bowing outwards of the thigh at the seat of fracture. The patient was treated for a short time in the apparatus worn on entrance, a modified long Desault. A plaster-of-Paris bandage was applied later, the patient not being etherized, Dr. S. Martin, of Roxbury, being present. The plaster bandage was replaced by a silicate-of-potash bandage, covering a long external pasteboard splint. The patient was discharged four weeks after entrance, and six weeks after fracture, with good union, but with slight bowing outwards at the seat of fracture.

NOTE. These cases of fracture of the thigh are reported, as they illustrate that certain facts are to be borne in mind in treating this lesion in young children. There is less muscular resistance to overcome than in adults. The fracture is usually transverse, and there is less danger of overriding of the fragments. Children do not as a rule bear close confinement to bed as well as adults. Buck's extension was tried in the first and second case, and proved to be much less satisfactory than with adults, owing to the greater difficulty in keeping children quiet. Hamilton's method was tried in Cases I. and II., and proved much more efficient in keeping the child still. It, however, confines the patient very closely to a recumbent position, which is irksome to a child, and in delicate children favors hypostatic congestion and lobular pneumonia. The plaster-of-Paris bandage did not cause any chafing in the cases in which it was used. It could be kept quite neat by painting on the parts exposed to soiling through discharges a thick coating of shellac or asphalt. The weight of the appliance did not appear to be a serious annoyance to the children. Silicate-of-potash bandages are of course much lighter, but the time required for them to become stiff prevents their use in recent fractures. In the cases reported, the double inclined plane recommended by some surgeons for use in treating fractured thighs in children was not found necessary, as the tilting upward of the upper fragment was readily overcome.

SHORT COMMUNICATIONS.

CODE OF ETHICS.

BY ELLWOOD C. LESTER, M. D.

THE Pea Ridge correspondent in his sketches of practice very graphically depicts the consummate meanness to which a physician may descend without violating the letter of the code of ethics. The assumed spirit of friendship for Dr. White, the faint praise, the innuendo of *limited experience,* with a quackish display of instruments and uncalled-for proceedings in arriving at the diagnosis of intestinal irritation, reveals a serpent more deadly than a rattlesnake, — a genuine sneaking copperhead, who quietly wounds his victim; a reptile which will bite in the dark, yet cower in the light of day. Every physician of experience has encountered such, and he is the most dangerous. He speaks of other physicians as clever fellows, good, social gentlemen, who *will* make good physicians after a while — all they need is a little experience, and they will be all right; or slightly insinuate they have some unfortunate weakness, and thus more cruelly stabs than one who proclaims himself an open enemy. Several years ago I encountered just such a fellow. He admitted many social virtues, but said *he had never seen my diploma.* A few days after I met him near my office, called him in, showed him the *questionable document,* and informed him that I dreaded a *skunk* more than a *wolf.* I know many physicians use consultations as a means of exalting themselves and degrading the attending physicians. By a wonderful display of learning, by imitating the Pea Ridge doctor in the use of entirely unnecessary instruments, and by half-expressed, half-suppressed innuendoes they create distrust, and thus steal patients from physicians.

It is remarkable that any physician would take the pains to teach the profession how to demean a brother physician and steal his patients without violating the code of ethics; and not less strange that a medical journal could be found ready to yield its pages to such base purposes without editorial rebuke, as one medical journal has done. The highly eminent physician who manufactures a secret nostrum and advertises it in newspapers under a woman's name is less reprehensible. It is baser to do base acts under the mantle of the code of ethics than under the petticoats of a woman. Both the doctor and the journal through which he teaches his professional legerdemain should receive the unqualified condemnation of the medical profession.

PHILADELPHIA, PENN.

[We are sorry to find that such a portrayal seems too true for fiction. — ED.]

ARE WOMEN ELIGIBLE TO THE MASSACHUSETTS MEDICAL SOCIETY.

MR. EDITOR, — From what has appeared in the JOURNAL, as well as in the public press, one would imagine that the above question had been definitely answered in the affirmative. A careful study of the by-laws has convinced me that this is not the case. By-law XXXIII. reads as follows: —

"ALTERATIONS OF BY-LAWS.

"XXXIII. All proposals for alteration of the by-laws shall be stated in writing.

"No alteration of a by-law shall take effect until it has received the concurrent vote of the councilors and the society; and no amendment affecting the import of said alteration shall be ingrafted on it without a concurrent vote. But the councilors or society may at any stated meeting, notice having been given at a previous stated meeting, or in the call for the meeting itself, adopt rules and orders for their better government, or alter, or amend, or annul the same, but these rules or orders shall not be temporarily suspended at any meeting, except by an affirmative vote of at least three fourths of the Fellows present.

"The society shall consider, and act on, by-laws at adjournments of anniversary meetings only, and not on the days of said meetings."

I have quoted the whole passage that I might not be accused of mutilating the sense, although the part relating to rules and orders for the government of either council or society has nothing do with the question. Now, as there has been no concurrent vote of the society, how is it possible to modify the by-laws so as to admit women?

The answer to this, no doubt, will be that as no by-law forbids their admission no legislation is necessary to sanction it.

It is true that there is no distinct prohibition, but there can, I think, be no doubt that the founders of the society and the framers of the laws did not anticipate that this would be construed into assent. The first by-law describes the qualifications of candidates, and in it we find always the pronoun *he* repeated a number of times.

Again, it is true that in laws and rules *he* is often used to refer to persons of both sexes, but only in cases where one could reasonably expect that both sexes were implicated. It needs no argument to show that only of late has the admission of women been favored by more than an insignificant faction. The feelings, or if you please the prejudices, of the society in old times were altogether against it, and it seems, at least to me, absurd that while the concurrent vote of council and society is necessary to change some paltry by-law, a matter of this consequence should be settled by the council alone. Serious complications may arise should any board of censors examine and admit women into the society, should it be shown afterwards that the council had exceeded its powers. The prudent course in this state of doubt would appear to be to lay the matter before the society.

THOMAS DWIGHT.

MORPHINE POISONING.

DR. COURTENAY, of Jamaica, contributes the following to the *British Medical Journal*, October 18th, to illustrate (1) the development of peculiar symptoms from the administration of morphia; (2) the marked physiological antagonism of belladonna to morphia, proved by the power of the former drug speedily to relieve the ill effects of the administration of the latter.

A male coolie, under treatment for lumbago in the Lucea Parochial Hospital, Jamaica, was ordered a hypodermic injection of one sixth of a grain of morphia, the injection to be repeated every night. This treatment was continued for three nights, and on the morning following the third use of the injection the patient complained of feeling unwell at breakfast, and retired to bed at 9.10 A. M., where he was seized with convulsions of a tetanic nature. His symptoms were the following: he was quite insensible, his eyes were widely opened and staring, the pupils slightly contracted, teeth clenched, face flushed, nostrils dilated, and breathing hurried. There was spasmodic contraction of the muscles of the upper extremity; the temperature was increased; the heart's action regular, though weak. This attack lasted for ten minutes, when consciousness returned; but on attempting to speak he was seized again, and the convulsions returned at gradually increasing intervals, until they finally left him at twelve, noon.

The treatment immediately adopted in this case was the administration of doses of ten drops of the tincture of belladonna every hour, with coffee and brandy, and the application of the extract of belladonna down the course of the spine. This treatment was continued for a few hours, and, all urgent symptoms having yielded to it, the belladonna was given in diminished doses of five drops every four hours, and continued for the two following days. At the end of that time, no recurrence of the convulsions having taken place, the ordinary treatment for lumbago was recommended, of course with the omission of the morphia injection.

[This is interesting in connection with the case entitled Unusual Effect of a Subcutaneous Injection of Morphine in our issue of October 30. It will be observed that the disease under treatment was lumbago in both instances.]

THE NATIONAL BOARD OF HEALTH.

To the Sanitarians of the United States.

By the act establishing the National Board of Health it is made the duty of the board to report to Congress at its next session a plan for a national public health organization, which plan shall be prepared after consultation with the principal sanitary organizations and the sanitarians of the several States of the United States, special attention being given to the subject of quarantine, both maritime and inland, and especially as to regulations which should be established between state or local systems of quarantine and a national quarantine system.

In order to fulfill this requirement, the National Board of Health has requested those interested in the subject to communicate their views to the board, and now respectfully invites members of state and local boards of health and sanitarians generally to meet with it in conference in the city of Nashville, Tenn., on the 18th to the 23d of November meeting of the American Public Health Association.

J. L. Cabell,
President National Board of Health.

T. J. Turner, Secretary.

THE CLIMATE OF NORDHOFF, VENTURA COUNTY, CAL.

Mr. Editor, — Allow me to call the attention of physicians who have patients and friends who must seek winter quarters, on account of throat affections, catarrh, and consumption, to a few facts relative to Southern California, and especially to this locality. Readers of the Journal will perhaps remember an article on Nordhoff[1] as a health resort, published October, 1877, by Dr. French. His statements, so far as I remember them, are essentially true. Dr. A. H. Adams, in the service of the American Board of Missions, saw the article while at his post in Japan, and had his wife, who had premonitory symptoms of phthisis well marked, remove to Nordhoff. Dr. Adams soon followed her, and he has resided here a year. He has just returned to Japan, fully satisfied with the result, and convinced that the climate of this locality has decided hygienic conditions, the best for *permanent* residence of any locality known to him. Mrs. Adams is to remain here for the present, although the symptoms of phthisis have "almost entirely" disappeared, in the belief that permanent benefit to one constitutionally disposed depends much on time and a favorable climate.

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[1] In the Ojai Valley (pronounced Ohi).

The writer of this article has been in Southern California five months, and from personal inquiry has collected the following statistics: —

The whole number of resident families at this date in the Ojai Valley is forty-nine. Of this number, thirty-six came here because some member of the family had premonitory symptoms of disease, or because, disease being developed after trial of other places, they could live nowhere else. The whole number of invalids at the present time is thirty-nine. Of these, twenty-seven are consumptive, eight have asthma, three have bronchitis, and one child, subject to frequent and violent attacks of croup before coming, now for four years has been entirely free from it.

Some of the cases of consumption were complicated. Hæmoptysis had occurred repeatedly in three of the cases before coming, but has not returned since. One of these has been here six years (and no return). He is the village storekeeper. One has a "chicken ranch," and the other has this year managed an estate from which he has just harvested six thousand seven hundred and thirty-three bushels of wheat. Some of the consumptives came here because of hereditary taint. Members of their families had died, and they feared the same fate awaited them. One woman, too weak to ride in the usual way, was brought here on a bed, and recovered. Of the twenty-seven cases only three are now considered dangerous. All the rest — twenty-four — are at work. Some of them say they are well; the rest greatly improved. This locality is favorable for bronchitis, but is especially so for asthma. All afflicted with asthma live here in comparative comfort. Some say they are well. Five of the eight cases were very severe. One man was brought here on a bed, but has been at work (after two months) ever since.

The Ojai Valley is separated from the Pacific Ocean by a mountain ridge, so that we have no direct sea winds. From July to October it is too warm for comfort for some days, or even weeks, but the nights are delightful. From October to July the weather is said to be perfect. The altitude of the lower Ojai Valley is one thousand feet. The upper valley is about fifteen hundred feet, the mountains five hundred feet higher. The religious and educational advantages are good. A seminary has been recently opened, where any one can be fitted for college. San Buenaventura is the nearest sea-port, fifteen miles over a very good stage road; thence access to San Francisco by steamer is easy. Probably there is no place where the patient can safely pass so much time out-of-doors in the year as here. One of the worst cases — a lady — has lived in a large tent under a group of live-oaks for the last five months. We have no rain here for about six months, yet young orchards are doing well, corn grows, and wheat is abundant.

A Physician.

SCARLATINA AND DIPHTHERIA.

Mr. Editor, — In the Journal for October 16th ultimo, page 542, Dr. Allen says: "The following propositions can be abundantly established by observation and the cases of the most reliable medical writers." I would like to have him or any one inform us how we can establish point 3: "That scarlatina anginosa may be complicated by diphtheritic exudation?" I have seen a membrane in scarlatina anginosa, but I never saw the clinical membrane of angina maligna in any form of scarlet fever.

James O. Whitney.

Pawtucket, R. I., *November* 6, 1879.

EMPYEMA IN AN INFANT AGED THIRTEEN MONTHS, CURED BY ASPIRATION.

Dr. Joseph Hunt, physician to the Wolverhampton and Staffordshire General Hospital, in the *Lancet*, October 25th, says: "The following case will serve as an addition to Dr. Barlow's list in the *Lancet* (December 21, 1878).

"Florence B., aged thirteen months, was brought to my out-patient room on November 26th, suffering from dyspnœa, emaciation, cough, and excessive night sweats, after an illness of a month's duration. On examination, the right side was bulged, and measured half an inch more than the left, while expansion was very deficient; vocal fremitus present, but weakened; percussion dull all over, dullness scarcely extending over the middle line; breath sounds weak; no displacement of organs; no œdema; respiration 60; pulse almost imperceptible; weight fifteen and a quarter pounds; temperature (rectal, twelve midday) 100.4° F. The patient was immediately aspirated, and nearly five ounces of very thick sweet pus withdrawn. The respiration and pulse both improved during the operation, and the chest became resonant throughout almost its whole extent. The right side of the chest was firmly strapped, and the patient was ordered iron wine and cod-liver oil, of each half a drachm three times a day, and some gray powder.

"Although, contrary to advice, the child remained an out-patient, and had to be carried some distance in very inclement weather three times a weak, she progressed most satisfactorily. There was no fresh secretion of pus, as was proved by the introduction of the aspirator needle twice, — on November 29th and December 6th, — and she was discharged on December 22d in the following condition: Temperature normal. Gaining weight. Night sweats entirely ceased. Appearing, as the mother said, 'quite well.' Chest: good resonance to nipple; behind, absolute dullness commenced at the tenth rib, but there was deficient resonance above this, and the note up to the middle of the scapula was not so clear as on the other side; breath-sounds nearly as loud as on the opposite side. The right side now measured about a quarter of an inch less than the left, and expansion was still slightly deficient."

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REPORTED MORTALITY FOR THE WEEK ENDING NOVEMBER 1, 1879.

Cities.	Population estimated for July, 1879.	Reported Deaths in each.	Deaths under Five Years.	Percentage of total Deaths from				
				The Principal "Zymotic" Diseases.	Diphtheria and Croup.	Lung Diseases.	Diarrhœal Diseases.	Scarlet Fever.
New York	1,085,000	494	217	22.87	8.50	14.17	7.49	3.04
Philadelphia	901,380	225	—	23.33	5.77	4.00	1.73	0.87
Brooklyn	564,400	237	—	25.89	17.72	15.19	4.64	0.43
Chicago	—	—	—	—	—	—	—	—
St. Louis	—	91	39	16.48	5.49	3.29	3.29	1.09
Baltimore	393,796	122	47	38.52	10.65	5.74	2.46	7.38
Boston	360,000	140	60	31.43	12.86	10.00	11.43	1.43
Cincinnati	280,000	90	32	13.33	1.11	12.22	5.55	3.33
New Orleans	210,000	113	—	15.04	7.08	5.31	2.66	—
District of Columbia	170,000	57	22	10.53	5.26	8.77	3.51	1.76
Cleveland	160,000	60	34	40.00	16.66	1.67	1.67	18.33
Pittsburgh	—	67	27	41.79	20.89	7.40	6.00	4.48
Milwaukee	127,000	33	13	36.36	30.30	9.09	—	3.03
Providence	101,500	41	21	39.02	17.07	4.89	2.45	19.51
New Haven	60,000	14	6	21.43	14.29	7.14	—	—
Charleston	57,000	30	10	10.00	6.66	6.66	—	—
Nashville	27,000	9	—	55.55	11.11	—	11.11	—
Lowell	53,300	19	10	10.53	—	—	5.26	5.26
Worcester	52,500	20	6	10.00	—	—	—	5.00
Cambridge	51,400	9	6	44.44	—	11.11	44.44	—
Fall River	48,500	—	—	—	—	—	—	—
Lawrence	38,200	9	6	33.33	22.22	—	—	—
Lynn	34,000	10	5	20.00	10.00	—	—	—
Springfield	31,500	15	—	20.00	13.33	20.00	—	—
New Bedford	27,000	11	3	45.45	18.18	—	9.09	18.18
Salem	26,400	8	3	37.57	12.50	12.50	12.50	—
Somerville	23,350	9	—	33.33	22.22	—	—	11.11
Chelsea	20,800	7	—	—	—	14.29	—	—
Taunton	20,200	—	—	—	—	—	—	—
Holyoke	18,200	10	5	50.00	10.00	—	—	40.00
Gloucester	17,100	7	3	14.29	—	—	—	14.29
Newton	17,100	—	—	—	—	—	—	—
Haverhill	15,300	4	—	25.00	25.00	—	—	—
Newburyport	13,500	2	2	—	—	50.00	—	—
Pittsfield	12,650	3	—	—	—	—	—	—
Fitchburg	12,500	3	1	33.33	—	33.33	—	—
Milford	9,800	1	1	—	—	—	—	—

Nineteen hundred and seventy-eight deaths were reported: principal "zymotic" diseases (small-pox, measles, diphtheria and croup, diarrhœal diseases, whooping-cough, erysipelas, and fevers) 455, consumption 327, diphtheria and croup 203, lung diseases 185, diarrhœal diseases 98, scarlet fever 66, typhoid fever 31, malarial fevers 25, whooping-cough 21, erysipelas eight, measles four, small-pox none. From *typhoid fever*, Philadelphia seven, New York five, Boston and Pittsburgh four, Cincinnati three, Baltimore two, Brooklyn, St. Louis, Cleveland, Milwaukee, Springfield, and Salem one. From *malarial fevers*, New Orleans six, New York five, Brooklyn and Nashville three, St. Louis and District of Columbia two, Baltimore, Boston, Pittsburgh, and New Haven one. From *whooping-cough*, New York, Philadelphia, Baltimore, and Boston three, Brooklyn, St. Louis, and Pittsburgh two, Cleveland, Charleston, and Fitchburg one. From *erysipelas*, New York two, Philadelphia, St. Louis, Baltimore, Worcester, Lawrence, and Lynn one. From *measles*, New York four. Diphtheria continues to increase; measles was more fatal, scarlet fever less so.

The meteorological record for the week in Boston was as follows: —

Date.	Barometer.	Thermometer.			Relative Humidity.				Direction of Wind.			Velocity of Wind.			State of Weather.[1]			Rainfall.	
	Mean.	Mean.	Maximum.	Minimum.	7 A. M.	2 P. M.	9 P. M.	Mean.	7 A. M.	2 P. M.	9 P. M.	7 A. M.	2 P. M.	9 P. M.	7 A. M.	2 P. M.	9 P. M.	Duration.	Amount in Inches.
Oct. 26	30.600	44	59	25	64	13	33	37	W	SW	SW	9	11	10	C	C	C	—	—
" 27	30.150	52	60	40	52	34	60	49	SW	SW	SW	14	11	7	C	F	F	—	—
" 28	29.505	48	57	45	85	100	85	90	0	SE	W	0	10	13	O	R	O	9.7	.30
" 29	29.435	53	58	45	57	37	54	49	W	W	W	25	24	9	F	C	C	—	—
" 30	29.629	50	58	44	53	31	55	46	W	W	SW	9	28	19	F	F	F	—	—
" 31	29.947	40	49	36	48	31	45	41	W	W	W	20	29	20	C	F	C	—	—
Nov. 1	30.207	36	44	30	59	33	45	46	SW	W	W	14	29	16	C	F	C	—	—
Week.	29.924	88	55	38				51	W			2559 miles.						9.7	.30

[1] O., cloudy; C., clear; F., fair; G., fog; H., hazy; S., smoky; R., rain; T., threatening.

For the week ending October 11th, in 149 German cities and towns, with an estimated population of 7,517,642, the death-rate was 23.8 against 24.7 of the previous week. Three thousand four hundred and thirty-eight deaths were reported: diarrhœal diseases 446, consumption 391, acute diseases of the respiratory organs 208, diphtheria and croup 113, scarlet fever 83, typhoid fever 62, whooping-cough 60, puerperal fever 21, measles 18, small-pox none. The death-rates ranged from 9.6 to 37.4.

For the week ending October 18th, in the 20 English cities, with an estimated population of 7,383,999, the death-rate was 20.9 against 19.6 of the previous week. Two thousand nine hundred and sixty-three deaths were reported: diseases of the respiratory organs 318, scarlet fever 161, diarrhœa 125, measles 65, whooping-cough 52, fever 42, diphtheria 22, small-pox (London) one. The death-rates ranged from 12.4 to 25.8. Diarrhœa, typhoid fever, and small-pox continued to prevail in the Belgian cities; diarrhœa and typhoid fever in the larger Swiss towns.

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OFFICIAL LIST OF CHANGES OF STATIONS AND DUTIES OF OFFICERS OF THE MEDICAL DEPARTMENT U. S. ARMY, FROM NOVEMBER 1, 1879, TO NOVEMBER 7, 1879.

Sutherland, Charles, colonel and surgeon. Having reported at division head-quarters, as medical director of the division, is assigned to duty at the Presidio of San Francisco, Cal., from this date. S. O. 134, Division of the Pacific and Department of California, October 24, 1879.

Munn, C. E., captain and assistant surgeon. To take post at Fort Hays, Kansas, and after reporting there to proceed to Fort Garland, Colorado, and report to Colonel McKenzie, fourth cavalry, for duty with the column now organizing there. S. O. 217, Department of the Missouri, October 30, 1879.

Hoff, J. V. R., first lieutenant and assistant surgeon. When relieved by Assistant Surgeon Shufeldt to comply with orders from A. G. O. in his case. S. O. 98, C. S., Department of the Platte.

Shufeldt, R. M., first lieutenant and assistant surgeon. Relieved from duty at Fort Laramie and assigned to duty as post surgeon at Fort Fetterman, Wyoming Territory. S. O. 98, Department of the Platte, October 29, 1879.

Appel, D. M., first lieutenant and assistant surgeon. Relieved from duty at Fort Stanton and assigned to duty at Fort Bayard, New Mexico, as post surgeon. S. O. 109, District of New Mexico, October 31, 1879.

Appel, A. H., first lieutenant and assistant surgeon. Assignment to duty at Fort Bennett revoked, and to repair to Fort Pembina, Dakota Territory, and report to the commanding officer for duty as post surgeon. S. O. 118, Department of Dakota, October 27, 1879.

LIST OF CHANGES IN THE MEDICAL CORPS OF THE NAVY DURING THE WEEK ENDING NOVEMBER 7, 1879.

Surgeon E. S. Bogert and Passed Assistant Surgeon M. D. Jones detached from the U. S. S. Monongahela, and wait orders.

Passed Assistant Surgeon J. R. Waggener detached from the New York School Ship St. Mary's, and ordered to the receiving ship, Boston.

Assistant Surgeon C. W. Deane detached from the receiving ship, Boston, and wait orders.

Passed Assistant Surgeon John W. Ross detached from duty with the National Board of Health, and ordered to the School Ship St. Mary's.

Passed Assistant Surgeon George C. Lippincott detached from the Navy Yard, New York, and ordered to special duty, Bureau of Medicine and Surgery.

Assistant Surgeon C. J. Nourse detached from the receiving ship, Norfolk, and ordered to U. S. S. Tallapoosa, temporarily.

Passed Assistant Surgeon F. Anderson ordered to the Navy Yard, New York.

Assistant Surgeon J. E. Gardner ordered to the Receiving Ship Franklin, Norfolk, Va.

Books and Pamphlets Received. — A System of Midwifery, including the Diseases of Pregnancy and the Puerperal State. By William Leishman, M. D. Third American Edition, revised by the Author, with Additions by John S. Parry, M. D. With two hundred and five Illustrations. Philadelphia: Henry C. Lea. 1879. (A. Williams & Co.)

Tobacco Poisoning, and its Effect upon the Eyesight. By A. W. Calhoun, M. D., Atlanta, Ga.

Memorial Oration in Honor of Ephraim McDowell, "The Father of Ovariotomy." By Samuel D. Gross, M.D., LL. D., D. C. L. Oxon. Louisville, Ky. 1879.

The Extirpation of the Ovaries for some of the Disorders of Menstrual Life. By William Goodell, A. M., M. D. Philadelphia. 1879.

Health Primers. The Skin and its Troubles. New York: D. Appleton & Co. 1879.

First Lines of Therapeutics. By Alexander Harvey, M. A., M. D. (Edin.) New York: D. Appleton & Co. 1879.

A Ministry of Health, and other Addresses. By Benjamin Ward Richardson, M. D., F. R. S., M. A., LL. D., F. S. A. New York: D. Appleton & Co. 1879.

Observations and Comments on Certain Convulsive Disorders. By Henry Day, M. D., Fellow of the Royal College of Physicians, London. A paper read before the Medical Society of London and selected for publication. London: J. and A. Churchill. 1879.

Essays on Infantile, Congenital, and Secondary Syphilis. By Edward N. Fishblatt, M. D. New York. 1879.

The Education of Girls as connected with their Growth and Physical Development. By Nathan Allen, M. D., of Lowell, Mass. Boston. 1879.

THE BOSTON
MEDICAL AND SURGICAL JOURNAL.

VOL. CI. — THURSDAY, NOVEMBER 20, 1879. — NO. 21.

HINTS ON THE DIAGNOSIS AND TREATMENT OF CLUB-FOOT.

BY BUCKMINSTER BROWN, M. D.

THE theory has been advanced by an English surgeon that talipes is always due to paralysis of certain muscles or sets of muscles. This theory, adduced dogmatically and without proof, has never been directly impugned or controverted. It has been adopted to some extent in this country by those of little experience, or who have neglected, in making their diagnosis, simple and obvious methods by which certainty on this point can be reached. Upon this hypothesis Mr. Barwell has founded a treatment, tedious as respects the time required, complicated in its application, and unsatisfactory in its results. This system, as is well known, consists of the application of various adhesive straps with elastic attachments, which are placed as nearly as possible over the origin and insertion, and are to follow the course of the supposed paralyzed muscles. In this way an endeavor is made to supply the place of the muscles referred to by the introduction of an artificial elastic force. The impossibility of successfully imitating nature, the disadvantage under which the power is used, the waste of force, the crowding together of bones in unnatural relation to each other, the alternative of the plaster slipping and losing any efficient hold on the parts to which it is attached, are objections to this mode of treatment which are sufficiently obvious.

Other methods have been devised, founded upon the same basis, which are but varied forms of that above described. In addition to these drawbacks we have the length of time which is confessedly required in cases of congenital varus, even in the hands of the contriver of the method; and the imperfection of the result as shown in the cases which he has cited. That this treatment is complicated is evident; that it is tedious and unsatisfactory as compared to other measures, which he disapproves and would supplant, no other evidence is needed than the author's record.

A glance at the only cases of varus, an account of which he has given in his work on this subject, four in number, will be sufficient.

In the first case, — whether congenital or non-congenital is not stated,

—the plasters were applied in July, 1864. In June, 1865, eleven months afterwards, the foot, as seen in the photograph, is still inverted, with a rising at the medio-tarsal joint and of the internal border of the foot and a crowding downward of the toes, while the heel lightly touches the ground, giving evidence that the contraction of the tendo-Achillis has not been overcome. Thus much is plainly visible to an eye accustomed to these photographic representations.

The length of treatment in the second case is not stated. The photograph taken after one month's treatment shows the condition of the foot but little changed from that represented in the first picture of the same foot.

The third case is one of infantile paralysis, existing three years, patient five years of age. Treatment by plasters commenced March 14, 1864, and ended June 5, 1864, nearly three months; but the case was still kept under observation as late as March, 1865. The ætiology of this case removes it from the class we are considering. Such feet are generally put into position with comparative ease, and whether they remain so depends upon the recovery or not of muscular power. In a certain number of such cases the muscles do regain their strength, and it often suffices simply to return the member to a normal shape, thus relieving the extension of the affected parts to effect a cure.

The fourth case had been previously operated upon. Treatment by plaster commenced April 13, 1864, and in July, the date of the last record, the case was not cured.

Contrast such results as these with the success attained by combined operative and mechanical surgery in the hands of those who have used and not abused these methods.

Surgeons who have from time to time published their experience in such cases, and with it photographic or other representations, and whose patients have been seen by considerable bodies of men, members of the profession, are tempted to consider this question (the best method of treating talipes) as settled by these results, and do not deem it requisite to produce new cases to reinforce principles which have been abundantly proved. Where perfection or a near approach to it has been continually reached in the treatment of talipes, where after treatment the feet are normal in shape, motion, and usefulness, it would seem unnecessary to reiterate principles thus enforced, and which the most extensive experience has approved. The average length of time required to obtain these results by the method indicated, in skilled hands, is three months. In some instances sixty days is sufficient; in others the period of treatment may need to be extended beyond the time I have mentioned. After the cure is completed steel supports, in a majority of cases, are not required, and should not be permitted.

The theory referred to nevertheless has, as we have said, gained some foot-hold, apparently because it has never been shown to be erroneous, and systems of treatment have been founded thereon which are an injustice alike to the patient and to the physician. The primary principle upon which the processes referred to are based can be proved correct or otherwise by the use of very simple expedients when making our diagnosis. This principle, as already stated, is that the loss of balance in muscular action is caused by paralysis or debility of a certain set of muscles. In varus it is declared that the abductors are in fault, that these are congenitally paralyzed. The cases of congenital varus in which this loss of power is present are very infrequent. They are in truth exceptional instances. This statement can be easily demonstrated by a careful examination. Children born with varus are often, perhaps generally, strong, robust, and healthy.

A child is brought for examination. We find the usual appearances of this deformity, perhaps in the third degree. The tendo-Achillis is strongly acting upon the os calcis, as in typical cases; the plantar fascia and probably the flexors of the toes are tense. The tibialis anticus operates upon the bone in which it is inserted, assisting the abnormal action of the last named, and also lifting the inner side of the foot. The extensor longus and the adductor pollicis may likewise offer resistance. If the patient is fat, it is difficult and perhaps almost impossible to feel a decided tenseness of the tibialis posticus. We however judge from a peculiar rising of the internal edge of the foot near the calcis, causing a slight crease or wrinkle, that the last-named muscle is in fault. In truth, this peculiar appearance can be accounted for in no other way but by the agency of this muscle; it is not present in all cases, by any means, but when present it is a sure indication. We then feel carefully near the lower end of the tibia and behind the malleolus, and if we have *tactile sensitiveness* well developed we shall find that on rotating the foot with the heel in the contrary direction to the distortion there will be a feeble, scarcely perceptible rising of the adipose tissue and skin against the finger, which can only be caused by a tightening of the deep-seated cord. This may not be sufficient to demand division, but in making our decision we must take into consideration the depth of this tendon beneath the surface. Otherwise we may be deceived, and find afterwards that our diagnosis in this particular was erroneous. It is evident that certain ligaments and abducting muscles are longer than they should be. Is there paralysis of these muscles which has destroyed the balance of power, or is the distortion due to some other cause?

If the child is of an age to understand, we tell him to turn out his foot. He probably will not at first fully comprehend what he is desired to do. If only one foot is affected, we begin with the well foot, and teach him what we would have him do. We adduct the foot, and, placing a finger two or three inches from the outer margin, tell him to turn it towards the finger, at the same time performing this motion for him.

We then place a finger at about the same distance from the inner margin, giving the same direction, and likewise adducting the foot. In like manner, the finger is held above the dorsum and below the sole. This done two or three times, the little patient will understand what is wished, and on being told to turn the foot in or out, up or down, will readily perform these motions. Beginning now with the other foot, it is manœuvred so far as possible in the same way, restricted within the narrow limits permitted by the deformity. It may be that the distortion is so extreme as to render the slightest movement impossible. But the exertion is all that is required. On being told to turn his foot towards the finger, generally, even in the worst cases, if the effort is made, a slight inward motion is perceived. If told to turn it out towards the same object, the attempt to comply with the request is answered by a play and tension of the abductor tendons. The fingers placed just above, behind, and below the external malleolus find the peroneus longus tense and vibrating, and uniting with its mates to perform the required action. The effort is for the most part null, but the evidence of non-paralysis of the abductor muscles is all sufficient. The same, with perhaps somewhat more extended motion, is the result of the effort at flexion or extension, or the bones may be so locked as totally to prevent this motion. The proof that we have not to deal with paralyzed muscles is conclusive.

If both feet are affected, the same process of instruction, though less easily inculcated and requiring more patience, will generally be attended with success. If it is an infant that we are to examine, it is equally important that in addition to learning what tendons are shortened we should ascertain if any are paralyzed; electricity will not always aid us in this case, neither is it required. If we watch the child in the free exercise of its limbs, kicking and stretching in its mother's arms, we can often detect a slight effort at eversion of the foot, evincing contractile power in the abductors. We may more certainly produce this motion by tickling the inner edge of the foot near the great toe, or the inner margin of the sole. This will rarely fail to cause an attempt, more or less strong, often very decided, on the part of the abducting muscles to draw the member away from the cause of irritation, and thus at once testify to their willingness to do their duty if the opposing forces were removed. In a large majority of cases a careful examination will reveal the fact that paralysis has no share in the ætiology of congenital varus. This rule is so universal that the exceptions are in my experience extremely rare. Upon the diagnosis in this particular must our treatment to a considerable extent be founded, and by it also will the prognosis be modified.

In *non-congenital varus*, however, this rule becomes much qualified. The loss of motor power in certain muscles from some cause after birth is not infrequently the origin of more or less inward inclination of the foot.

By the simple means which I have indicated, with modifications in accordance with the exigencies of the case, we can attain a delicacy of diagnosis often of essential service; we can fix the deficiency upon a certain set of muscles, and often upon a single muscle. In addition to this, or rather previous to the examination, we may note the physiognomy, so to speak, of the foot. Whether the deformity is slight or severe, there usually may be observed a certain lack of firmness about the dorsal aspect; not by any means, however, the relaxed or flaccid appearance of a paralyzed member. Ligaments, elongated or shortened, are simply passive elements in the condition of the foot, although often offering obstacles to its restoration. The character of those instances of varus which arise from traumatism or from other similar causes is for the most part easily ascertained. In a case some time since under treatment, an acute inflammation, almost localized in the os cuboides, caused a swelling of that bone and its investments, and produced as perfect a varus in general appearance as any originating in contracted tissue. Such an instance is extremely rare, and perhaps stands by itself in recorded cases.

In *talipes valgus*, whether congenital or non-congenital, the rule in respect to partial or complete loss of power in a muscle or in a set of muscles may be reversed or much modified. There is generally a want of normal vigor. It may be simply a deficiency of nerve influence, which offers no appreciable impediment to the appropriate means of cure. In such instances, or even if limited paralysis is present, there is often complete restoration of normal subjection to volition.

Two cases occur to my mind where there was partial dislocation of the foot outward, the internal malleolus being displaced inwardly, with extreme flexion, the foot lying against the leg; in neither of these cases was there paralysis. The deformity was removed in early infancy, the child in one instance walking at the age of ten months. Sometimes the cause of a slight eversion may be traced to a single muscle. The tibialis anticus alone may be in fault, and the imperfect gait and splay, parrot-toed foot may originate in debility or paralysis of that muscle. If the eversion is more marked the posticus may also be implicated, and if still further advanced the extensor longus pollicis may also have suffered, and still others may be involved.

Valgus exists in every grade, from the simple debility or paralysis of a single muscle, with or without contraction of antagonizing muscles, and with a scarcely noticeable lameness, to that in which the internal malleolus touches the ground at every step. The peronei, if not originally contracted, in progress of time become shortened, and finally the extensor longus digitorum and tendo-Achillis.

Equinus, again, is a consequence more frequently of tonic shortening of the gastrocnemii than of deficient contractile power of the flexors. Where this coexists the foot does not retain its direct extension, but diverges either inward or outward.

Arrest of development, causing deficiency of the lower end of the fibula, or *ununited fracture*, or *enervation* consequent on spina bifida, have each, in my experience, given rise to the worst forms of valgus, in which the lower extremity of the tibia has borne the weight of the body in walking. The case of spina bifida is of interest as being one of the few cases where the patient has reached maturity. She walks by the aid of artificial support.

Likewise, varus or equinus may, by injudicious treatment, be converted into valgus or into calcaneus with an inward or outward twist.

Congenital calcaneus is generally due to a weakened or abnormally stretched triceps suræ from position in utero, or to disturbed muscular equilibrium from paralysis; more rarely to a spastic contraction of the antagonizing muscles.

In an address by Dr. W. J. Little, delivered three years since before the British Medical Association at their meeting in Edinburgh, that distinguished surgeon gives a history of tenotomy, and the steps by which this operation was gradually applied to the different shortened tendons in the treatment of congenital varus. After speaking of the influence exercised by the posterior tibial muscle in the production of the deformity, and the importance of its division in many cases, and of the severance of the tendo-Achillis, anterior tibial, long flexor of the great toe, and plantar fascia in appropriate cases, and of the accompanying mechanical treatment, Dr. Little says: "No improvements on these principles of treatment have been effected since that period (1839). Individual surgeons have acquired technical skill, or have introduced modifications in apparatus. Evidence in proof of this assertion is afforded by the cases and illustrations appended to my work of 1839, already quoted. It was then with justice triumphantly felt that as regards congenital club-foot a success never before reached in the history of orthopedic surgery had been obtained. . . . . Some tinge of enthusiasm may at that time have been pardonable."

Dr. Little then explains why the hopes then so justly entertained have not been fully realized, and refers to the fact that both in public and private practice patients constantly present themselves who have been only half cured, or not even benefited.

The neglect of the treatment after operation in cases where operation is required, and of that careful personal supervision and attention to the minutiæ of mechanical treatment, is the sufficient explanation of this disappointment and of these untoward results.

In a note referring to this subject we find the following remarks:—

"I should fail in my duty to the profession and to the public if I did not unhesitatingly here state that many of the most able surgeons, as well in the metropolis as in the provinces, have inflicted much injury by heedless tenotomy, that is, through having undertaken the treatment of these cases without sufficient previous study of the subject, through insufficient acquaintance with the mechanical aids requisite, or disregard of the teachings of their predecessors as to the value of manipulations and the mischief resulting from keeping a part too long *secured* in an apparatus. I will adduce a case in point: A parent lately brought to me a child, four years old, who had originally been affected with congenital varus of average severity. The family surgeon had fruitlessly cut the tendo-Achillis, and used a so-called Scarpa shoe. The distortion being unabated, and the child already walking in the position represented in Figure 1 of this paper, the family surgeon sent the patient, with a letter of introduction, to the senior surgeon of a metropolitan hospital, who admitted the case into his hospital, and, in addition to redivision of the tendo-Achillis, severed the anterior tibial, kept the patient three months in the hospital, and sent the child home wearing an apparatus similar to that previously employed by the family surgeon, with the foot apparently none the better when examined out of the apparatus.

"A few months more elapsed; the deformity and difficulty of walking becoming aggravated, the child was again sent to the metropolitan surgeon, who again took it into his hospital, repeated the operation, ordered an apparatus, again leaving the mechanical treatment to his house-surgeons and dressers. After the second stay in the hospital — this time of four months' duration — the parents removed the child and bronght it straight from the hospital to my house. The case was as bad as a case of neglected varus of four years old can be, with the aggravation of several large cicatrices above the insertion of the Achillis tendon into the heel, two considerable (by comparison) scars over the anterior tibial tendon. The posterior tibial tendon did not appear to have been touched.

"By this paper I desire to show that such occurrences are not desirable or unavoidable. I do not exaggerate when I say that I have come across many scores of such cases with the same history. These are not cases of accidental failure of treatment, but cases in which all the principles of treatment, as laid down in this paper and in many previous writings of my own and of other authors, have not been followed, and in which the surgeon has neither attended to the details of treatment himself, nor placed the management, after operation, in the hands of competent assistants. . . . . The case (above referred to) has been restored to perfect form and movements, and will, I expect, need the aid of no supports or irons after three or four months."

This author further adds: —

"When we contemplate the perfection with which the worst forms of infantile congenital club-foot are, under favorable conditions, remedied at the present day, we may console ourselves for some disappointments, and be reassured that the subcutaneous method of Stromeyer has conferred great blessing on humanity, has increased the usefulness of our profession, and given it an additional claim to the regard of society at large."

That unfortunate cases arising from causes similar to those referred to by Dr. Little are not confined to the other side of the Atlantic my own experience abundantly testifies.

Amid the conflicting inventions of apparatus, splints, bandages, etc., the question may be asked, What is the best method of treating talipes after operation, or where operation is not required? Not by the gypsum or starch bandage certainly, nor in all cases and through the whole treatment by the tin splint, or the gutta-percha sandal, or the india-rubber muscles, or the Scarpa shoe, or the Sayre shoe, or the triple-screw apparatus. Some two, three, or four of these arrangements may be employed in the process of cure, but to no one should we confine ourselves in the treatment of a typical or severe case of talipes varus or valgus. Neither should any one of them be applied so as to produce pressure upon the same spot, or have its action unchanged for any number of days in succession. It seems hardly possible that in cases the cure of which is so dependent upon constant daily change of position, upon manipulation, and in every way imparting tone to overstretched or weakened muscles, that retention in plaster-of-Paris bandages for six weeks without removal should be recommended and practiced as an improvement in the treatment of these affections. Yet this course is advised by a writer in a recent number of the *Edinburgh Medical Journal.*[1] This author says: "In slighter cases three or four bandagings" (six weeks each) "suffice to affect this" (bring the foot through the first stage). "In the worst cases six or eight may be required."

In the milder forms of congenital talipes varus, according to this author, a period is required of from four and a half to six months before the foot becomes changed into a talipes equinus, and in the severer cases from nine months to a year may be needed before the same result is reached. The sum and substance of this treatment may best be stated in the words with which the article referred to is opened: "The treatment of congenital club-foot (talipes equino-varus) is one of the most difficult, tedious, and disappointing undertakings in the whole range of surgery."

We need no other commentary on the method or methods of treatment which have terminated in so discouraging a conclusion, — a conclusion so decidedly the reverse of that cheeringly set forth in some of the sentences I have quoted from Dr. Little, and so completely at variance with that which has been the result of my own experience. On the contrary, I would assert that in the whole domain of surgery there is no class of patients the treatment of whom is in the large majority of cases so entirely satisfactory.

The starch bandage is open to the same objections as the gypsum.

The tin splint may be useful in the beginning or in slight cases through the entire treatment if the patient is an infant, employed as is done by the English surgeons, but its form should be frequently varied and the points of pressure constantly relieved. We may use a Scarpa shoe, and it is a most valuable instrument in certain stages of the treatment. It makes but little difference whether we have a hinge in the instrument to correspond with the medio-tarsal joint or not. It has of late been said that the prominent part played by this joint in the deformities in question, or the importance of a special action upon it, has been overlooked by previous authorities. This statement is a serious oversight; no surgeon who has ever cured a club-foot — by cured I mean cured in its fullest sense — can have done so without faithful regard to this point. Certainly from the commencement of my treatment of this deformity it has received the attention which its importance demands.

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[1] An Improved Method of Treating Club-Foot. By Alexander Ogston, M. D., Surgeon to the Aberdeen Royal Infirmary. Edinburgh Medical Journal, December, 1878.

There is no especial need of a joint, either with lateral or with combined rotary and lateral action, in the sole of the Scarpa, although such combinations are sometimes a convenience. The cup which retains the heel and ankle can well be brought sufficiently forward on the side of the convexity of the foot, and this, well padded, serves as a fulcrum for the medio-tarsal joint, and the spring at the side of the sole will then act powerfully to as good, or better, advantage as if there were such a joint in the instrument. The rotation movement is more easily applied if the sole is firm, that is, without the joints referred to, by means of narrow pads under the outer or inner edge of the foot, and a counter-pressure by the same means on the outer or inner edge of the dorsum. The action of the cross-straps does the rest. These simple appliances can be so changed and the degrees of pressure so varied that they are less irksome than other more complicated and less easily changed arrangements. The rotary and lateral action on the medio-tarsal joint is thus powerfully and equally produced, and the points of contact constantly relieved.

The triple-screw apparatus has always a lateral joint in the sole. This instrument is often of most important aid at certain stages of the treatment of even infantile cases of the severer grades. When the foot has been everted or inverted, rotated, and unfolded, the attempt at flexion at the ankle to the full extent of normal action is sometimes abortive. Then the gentle, graduated power of the screw is found most admirably adapted to our purpose, and facilitates and hastens our work. Perfect upward motion is thus obtained, and the member is now in a condition to go free of all incumbrance, excepting in the night, and in some instances for a portion of the day, when a retentive sandal may be worn, or a light Scarpa shoe.

In regard to the propriety or expediency of operative interference, again let pathological investigation and experience, backed by common sense, be the guide. In the majority of cases of varus of the third, and in many of the second, degree, my own experience confirms the united testimony of surgeons of the most extended orthopedic practice in regard to the value, not to say absolute necessity, of subcutaneous tenotomy. Without this we are simply thrown back to the ante-Stromeyerian period. The sufferer is deprived of the advantage to be derived from that great stride in the surgeon's art, and is relegated to the benefit to be found in mechanical appliances alone. The reasons given for abandoning surgery in such cases are inconclusive and in the face of a vast amount of unprejudiced experience. The abuse of surgery, and not its use, is to be avoided, and it is its misapplication and inappropriate or inattentive after-treatment which has produced failures and consequent opposition. Cases which demand the tenotome are generally sufficiently pronounced. The sensation imparted by the implicated tendon is to the experienced touch a sufficient indication. Where there is doubt, a trial of some extending apparatus or splint will settle the question.

The tibialis posticus is often overlooked, both in diagnosis and treatment, yet it is frequently an important element in the distortion, and its non-division the source of an imperfect result. The comparative difficulty and danger attending this operation has undoubtedly led to its omission in many cases where it was required. In the process of cure this tendon, not at first decidedly demanding operation, will sometimes offer resistance to further progress, and will need division. Likewise, in other instances, where, it may be, we have not considered it advisable to sever the tibialis anticus early in the treatment, we may find that restoration does not advance as rapidly as we had reason to expect, and trace the obstacle to this last-named muscle. In yet other cases, even after its division, disappointment may arise from too speedy union. In such instances, I have found that redivision will remove the check and give a renewed impetus towards cure. This course in respect to the anterior tibial is comparatively safe. The peculiar position of the posterior tibial in its connection with the ankle-joint renders such an alternative unlikely to occur, and under any circumstances, on account of its especial liability to contract adhesions, its redivision is unadvisable. But it is far better never to use the knife in the treatment of these affections than, after having used it, to neglect a single detail in the after-treatment, or fail to derive, by appropriate mechanical appliances, all the advantage afforded by the severance of the contracted tissues.[1] The after-treatment must never be intrusted to unaccustomed hands ; success depends on constant, unwearied, personal attention.

Perfect union, free from adhesion, after division of the posterior tibial tendon may not be attained, and in some other instances such a result may be frustrated. But in those cases where this failure is most apt to occur, the complete integrity of the tendons is often of less importance than the obstruction offered by a permanently shortened and inextensible cord. Practically, where division has been skillfully performed, followed by appropriate treatment, the adhesions, if any, are so slight as not materially to impede muscular action.

Authorities are divided in regard to the period which should elapse after operation before extension is commenced. On this point my experience has led me to a different conclusion and practice from that recommended by Dr. Little. In non-paralytic congenital varus, all the parts implicated, tendon, ligament, fascia, and even the skin, are adapted to the deformity. By extending immediately, we run no risk of proceeding too far. Impediments at once present themselves and prevent too rapid restoration. It is important to gain all we can during the first few hours, from the amount of freedom obtained by the operation, before the process of healing has commenced. So true is this that in most instances where I have been led from some accidental cause to defer the application of splint or apparatus, I have had occasion to regret the delay. If the extension is postponed only until the next day the pain it causes is greater than when applied at first. There is more soreness at the seat of the operation, and the part operated upon bears less willingly the new position. I therefore say without hesitation, in those instances to which I here refer, extend at once ; there is less suffering, the tissues yield more readily, and on account of the obstacles already mentioned there is no danger of extending too much. The shortened, deep-seated tissues soon present obstructions to too rapid progress. The danger sometimes apprehended of tearing open the wound is in like manner obviated. In fact, this is an accident I have never seen happen after any subcutaneous operation, although undoubtedly it may occur from ill-judged extension. I am convinced that it is only in cases where there has been error in diagnosis that the mischief feared can result, and that it is observation of cases treated by less experienced hands than his own which has led Dr. Little to advise a different course.

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[1] As an instance of the importance which the author attributes to the observance of the minutest detail, he will mention that when the foot is undergoing its morning ablution it should, when in the water, be held firmly in the position it has gained while in the apparatus, and not be permitted for a moment while dressing to revert to its former malposition, if it is possible to prevent it.

The injuries arising from injudicious pressure are not here considered, as they are in all cases unnecessary and always to be avoided.

In cases of talipes caused by *paralysis*, however, the manner of dealing with the complaint as regards immediate extension should be very different. In a majority of such instances the paralysis has apparently occurred late in uterine life, or has supervened soon after birth. There is a general relaxation not found where the ætiology is different. There is then great hazard of too rapid advance in extension after operation. In those cases where section is needed, extreme caution is required to prevent too great elongation of the newly formed material. The state of the parts is so unlike that usually present in the class of cases previously referred to that restoration should be conducted slowly and with constant reference to the possibility of producing a form of talipes the reverse of that we are treating.

Observation teaches that in many such cases the operation and treatment by the introduction of new tendon of a certain length, thus permitting normal use, strengthens and develops fibrous tissues and increases the power and size of the limb. This in contradistinction to the treatment by simple extension, which in the instances now under consideration stretches and proportionately enfeebles.

The propriety of operating in a certain number of this class of cases is undoubted. The resisting fibres are often stringy and inelastic. The attempt at stretching is far more weakening than division. In instances where simple extension is partly or entirely successful in restoring the form while the member is in the instrument, or for a short time after its removal, the debilitated opposing muscles are often unable to overcome the tendency to relapse. Experience has shown that the best and most permanent success attends upon those cases where structurally shortened muscles are lengthened by the interposition of new material carefully limited in its extent. This accurate measurement of the amount needed requires, undoubtedly, the exercise of a judgment familiar with the processes we are watching, and is often the source of anxiety during treatment. The perfection of the cure, however, which rewards the effort is such as can be gained in no other way.

The importance of manipulation, of active and passive exercise, of friction, of massage, and in some cases of electricity, cannot be too highly estimated, as affording most valuable aid during the course of the treatment, increasing the development and activity of the muscles and the usefulness of the limbs.

A CASE SUPPOSED TO BE PHLEBITIS OF THE LUNGS.

BY ALFRED HOSMER, M. D.

The phrase phlebitis of the lungs is not a familiar one; it forms no part of the current language of professional conversation, and finds no place in the books. Its meaning may be partially inferred from analogy. It is not original with me; it was suggested by Dr. Morrill Wyman. When asked, by letter, in what vessels he supposed the morbid process to be located, he replied, "The pulmonary capillaries. In the arteries first, but continued through these into the veins." He adds, "Virchow and Wagner, article Embolia and their consequences, especially Wagner, give many facts which I think lend support to my views."

The subject of this report was an American, aged twenty-six, of good general health, of excellent habits, and brought up under circumstances of comfort and plenty. Engaged in a healthy occupation, he led an active life out-of-doors, within three miles of Boston. He had always been well. His father was a healthy man. On the maternal side there had been some cases of phthisis. His mother, at the age of forty-two, died suddenly with a fatty degeneration of the heart, twenty-nine days after labor. Some of her children exhibited the effects of that influence which has been denominated scrofulous. May 13, 1876, the patient returned from the Centennial at Philadelphia, and found the journey a laborious and fatiguing one. May 15th, an aggravation of certain sensations which for some days he had experienced in a slight but increasing degree, convinced him that he was sick. He did not give up his business until May 20th, and six days later I made my first visit. I found the patient sitting up and dressed as usual. He was soon compelled to take his bed. The symptoms in their significance were vague and ill defined, and did not point towards any known or regular form of disease. The possibility of malarial influence was suggested by occasional slight chills; it was carefully sought, but could not be found. Nevertheless, the patient was so ill that on May 29th his pulse and temperature were respectively 120 and 104° F. The first definite indication of local trouble was obtained June 12th, upon which day there occurred a slight hæmoptysis followed by cough. The next day there came a severe pleuritic pain in the right side. June 14th, the face was much flushed. In addition to the sputa, which, sufficient in quantity, had all the characteristics that are included in the term pneumonic, there was going on a constant hæmorrhage from the lungs, the blood being of a bright, arterial color. The physical signs, commencing with crepitation (not fine), underwent such change that during the dates 15th, 16th, and 17th it was very easy to recognize small areas of hepatized or condensed tissue at three different points in the lung, while in the left back was one spot which was the seat of a similar affection. On the 18th, there was an admixture of coarse crepitus with the bronchial sounds of the previous days. The temperature was then 100° F. June 20th, the mind was somewhat confused, the tongue dry, and the temperature rising. The following day he was visited by Dr. ——, of Boston. The hæmoptysis then was the most conspicuous, and seemed to be the most significant, of the numerous symptoms which pointed unequivocally to some pulmonary disease. A diagnosis of catarrhal pneumonia was made; it was feared that destructive processes of a serious character were in progress. The 22d and 23d brought some improvement in the aspect of the case. June 24th (the forty-first day), Dr. Morrill Wyman came in consultation. Then the expectoration consisted simply of mucus without blood. The suggestion of phlebitis of the lungs was made at that time, and with such explanations that it seemed to be a very reasonable and satisfactory theory. Four days later the temperature had become normal, and the condition of the lungs, as shown by physical signs, was decidedly better. The pulse was 108, and the respiration was 36. On this day the expectoration was rather small in quantity, but mixed with a large proportion of blood, some of it being of a dark, gangrenous color. From this time the pulmonary symptoms were as follows: The increased frequency of the respiration was long maintained, and is recorded at 30, July 26th, the seventy-third day. Cough continued in slight degree even up to the end of the eleventh week. Expectoration ceased on the sixty-seventh day, and up to the fifty-fifth day there was almost constantly more or less hæmorrhage. Physical signs in the form of crepitation and diminished resonance at the points originally invaded were very persistent. At no time was dyspnœa complained of.

June 27th, the forty-sixth day, there came an attack which was of no doubtful nature, and which seemed to relieve the obscurity that had surrounded the true character of the thoracic disease. At 11.30 A. M., the patient was suddenly seized in the groin with a most violent pain, which soon took possession of the whole extremity. Very soon the toes became cool, and the capillary circulation sluggish. Swelling rapidly followed, and the limb was enormously enlarged in its entire length. The firm, corded, sensitive condition which was at once developed along the course of the femoral vein established the diagnosis. The subsequent history of this thigh and leg each one has already read in his last case of phlegmasia dolens. Throughout the case the temperature was variable and unsteady. It attained its maximum, 104° F., on the fifteenth day, May 29th. It was normal on the day preceding the attack of femoral phlebitis, and on the following day 100° F. The seven subsequent daily observations made in the morning were, respectively, 98.4° F., 102° F. (103.6° P. M.), 103° F., 101.2° F., 101° F., 99.8° F. After this, up to the seventy-seventh day, when it was normal, it varied sometimes with very sudden transitions from 98.4° F. to 103° F., reaching the latter figure on the seventy-second day.

The figures which represent the pulse-rate show that it somewhat resembled the temperature in its numerical unsteadiness. On the fifteenth day it was 120; on the forty-fifth 108. Immediately after the attack in the leg it again rose to 120, and on the fiftieth day to 150. From this point it fell in three days to 108, and afterwards ranged from 100 to 114, until the seventy-seventh day, when it counted 102.

On the part of the digestive system nothing of interest or importance was noticed. A slight nausea is recorded on the forty-seventh day. The nervous system suffered but little. The mind, as a rule, was bright and clear, and there was a remarkable freedom from headache. The sleep was fair; there was a constant restlessness and impatience, for which his temperament might account in part. There was loss of strength and flesh, of course, but nothing that approached emaciation or prostration. On the sixty-second day the patient first sat up.

The interesting features of the case are: (1) the tardy development of those symptoms which pointed out the location of disease in the lungs; (2) the persistent hæmoptysis combined and associated in a manner entirely new to me; (3) if the diagnosis be a correct one, the exceptional character of the pulmonary affection.

I frequently see the patient; his friends consider him well, but the process of convalescence has never been completed. The right side is often the seat of sharp pains, and the right leg, though somewhat variable in size, has never recovered its original diameter. The swelling with which it is still affected now and then is increased to an inconvenient degree.

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RECENT PROGRESS IN PATHOLOGY AND PATHOLOGICAL ANATOMY.

BY R. H. FITZ, M. D.

PATHOLOGY.

Death from Shock. — In a communication to the Breslau Physiological Society, Dr. H. Simon [1] calls attention to some of the recent views concerning the pathology of shock. That a comparatively small number of cases of death from shock are now reported is undoubtedly due to the more accurate knowledge of the causes of death as obtained by means of experiment and pathological anatomy, aided by the use of the microscope.

Simon includes under the term shock only those conditions in which a reflex paralysis of the respiratory and cardiac centres are caused by the powerful, violent, and sudden excitation of peripheral sensitive nerves. Czerny considers that death cannot be attributed to shock when a considerable interval of comparative well-being exists between the occurrence of injuries or an operation and death, although the latter may take place suddenly, and without the discovery of an anatomical cause. Nussbaum offers a number of explanations for such a result, as septicæmia, which is so dangerous in operations necessitating the opening of the abdominal cavity, owing to the great capability of absorption shown by the peritonæum; fat embolism of the lungs also, so often met with after bones have been crushed; then, the anæmia of old people, in consequence of which even moderate hæmorrhages are capable of producing acute marasmus; finally, the lowering of temperature in operations demanding a prolonged exposure of the peritonæum. The peritoneal and abdominal veins become widely distended with blood, on account of the removal of the elastic pressure of the abdominal walls upon the viscera, and large quantities of blood are thus exposed to the cooling process, which is promoted by the evaporation of fluid from the peritoneal surface.

Another element in the cause of death from shock after operations in the abdominal cavity is made evident by the experiments of Gutsch, which are here referred to, and have been corroborated by Simon. Gutsch maintains that the continued handling of the exposed peritonæum is the main cause of the shock in such cases, his opinion being the result of observations upon the temperature and blood-pressure of rabbits experimented upon. Although the temperature fell after the operation, its descent was by no means parallel with the course of the blood-pressure, which became progressively lower with the repeated handling of the peritonæum, and the longer the period of exposure to the irritants the less intense did they need to be. Gutsch therefore concluded that the sudden, otherwise inexplicable death after ovariotomy is rather due to the operation and the consequent repeated and continued irritation of nerve terminations, which produce a reflex central depression, as in the experiment of Goltz, probably by means of vascular nerves, especially of branches of the splanchnic nerves. Although the lowering of the temperature may be likewise of importance in occasioning death, its influence is far less than that of the irritation mentioned, and operators are cautioned against even the slightest manipulation of the peritonæum which is not absolutely necessary.

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[1] Allgemeine medicinische Central-Zeitung, 1879, liii. 689.

Origin of the Fatal Dyspnœa and Coma of Diabetes. — A cause which might give rise to the coma so often observed in severe cases of diabetes has been referred to in a previous report.[1] A fresh contribution to the obscure ætiology of this subject has been made by Sanders and Hamilton.[2] It occurred to them that the fatty condition of the blood occasionally noticed might give rise to fat embolism, and thus a mechanical cause for the dyspnœa might be present, which, if proven, would give a more satisfactory explanation of this symptom than the doubtful theory of acetonæmia. Fluid blood removed from the heart and kept in a vessel was divided in the course of half an hour into two portions, the upper of a milk-white color, the lower of a deep pink hue. The white layer was largely composed of an emulsion of oil globules resembling chyle. The odor of the blood was like that of acetone. The microscopic examination of the blood-vessels of the lungs and kidneys showed that fat embolism had taken place in them.

In the examination of the blood from a second case of diabetes, the lipæmic condition was evident, but no microscopical examination of the organs was made. The chemical examination of the blood showed the merest trace of acetone.

That the peculiar dyspnœa and coma closing cases of diabetes are due to lipæmia and fat embolism rather than to acetonæmia is to be inferred from the discovery of these conditions, and the importance of the latter in fatal cases of the fracture of bones, with the similarity of the dyspnœa and coma in the two series of cases. But little acetone was found in one instance, and the symptoms of poisoning by acetone are not identical with those observed in diabetes, nor does this agent produce similar changes in the blood and organs to those met with in diabetes.

Cutaneous Absorption and Albuminuria. — The occurrence of a case of albuminuria without anatomical evidence of disease of the kidney, following an extensive dermatitis caused by an inunction with petroleum, led Lassar[1] to experiment with reference to the relation between albuminuria and absorption from the skin.

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[1] The JOURNAL, May 22, 1879, 712.

[2] Edinburgh Medical Journal, 1879, cclxxxix. 47.

Soon after croton-oil was applied to the skin of rabbits an inflammation resulted, and the urine contained much albumen, although the kidneys presented no inflammatory changes. When an inflammation of the subcutaneous tissue was produced by turpentine no albuminuria followed, and it was inferred that the condition of the urine was not due to the inflammation of the skin, but to the use of croton-oil.

It is generally conceded that a pathological albuminuria is the result of increased transudation from the renal vessels in consequence of inflammation, or depends upon an increased permeability of the renal epithelium.

In the study of the method of action of petroleum it was found that after its application to the skin a resinous substance was first secreted with the urine, which was evidently a product of petroleum in the organism. Then an albuminate made its appearance, which was thought to be pepsin, or some other readily diffusible albuminate. Finally, the ordinary coagulable albumen was observed.

An examination of the kidneys made during the passage of the resin and pepsin showed no observable change, while during the passage of the albumen the epithelial lining of the tubules was seen to be in a flaky-granular degeneration resembling that occurring after poisoning with the neutral chromate of potassium.

The presence of innumerable fat drops in the interstitial tissue, epithelium, and tubes of the kidneys, and in the blood-serum and fluids of the tissues, as well as in the cells of the liver and lungs, was considered as evidence that the petroleum had been absorbed. The drops were most abundant in the subcutaneous connective tissue. Preparations made with osmic acid suggested that the passage through the skin had taken place by means of the hair follicles. The use of certain other oils showed that indifferent fats and oils pass through the renal epithelium without injury to it, but the integrity of the latter becomes impaired when chromium-salts, croton-oil, tincture of cantharides, tartar emetic, petroleum, and other irritating or poisonous material is secreted in any considerable degree of concentration. It is evident, therefore, that oily substances may pass through an unbroken skin and be eliminated by the kidneys without injury to the renal epithelium, and that an inflammatory irritant, when applied to the skin and producing a dermatitis, does not necessarily give rise to albuminuria. When, however, specific irritants are employed, local affections of the skin and kidneys result which are independent of each other, though both are effects of the same cause.

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[1] Virchow's Archiv, 1879, lxxvii. 157.

Origin of Hyaline Casts. — Making use of the property of heat in coagulating albumen, Posner[1] studies the changes taking place in organs which are filled with albumen in consequence of pathological changes. If the respective portions of organs are placed in boiling water for a short time the albumen becomes fixed in the places occupied by it, whereas other methods of hardening, with the possible exception of picric acid, remove the albumen. It is stated that no injury to the tissues results, and that the specimens can be subsequently stained, and permanently kept without injury in the various preservative fluids.

The spaces containing the albumen are filled with this material in a finely granular condition. Special stress is laid on the fact that by this method the merest trace of albumen can be demonstrated with certainty.

In the examination of the diseased kidney the albumen is made evident around the glomeruli and in the tubules. When the escape of albumen has taken place from the capillary net-work surrounding the tubes, this substance may be observed between the basement membrane and the elevated epithelium. It may be quite colorless, or yellow from the presence of blood-coloring matter, or quite hæmorrhagic. This method of examination shows that the large white kidney owes its appearance to a complete distention of the capsules and tubules with albumen.

The relation of the exuded albumen to casts was also studied, and evidence was obtained in opposition to the view of the origin of the latter from altered epithelium. The transition between albuminous and homogeneous masses could be distinctly observed, and wholly serous, partly hæmorrhagic, and partly homogeneous exudations could be found.

In the renal changes resulting from chromate of potassium the exudation was observed to surround and inclose the epithelium, and the beginning of the formation of casts was to be seen as a precipitate of glistening fibres appearing as a net-work on the border of the cells. When a circulatory disturbance alone was produced and abundant casts were present with unaltered epithelium, it seemed rational that if epithelial changes occurred they should be regarded as secondary. In cases where extreme degeneration of the epithelium is present, even with complete absence of the cells, there may be no casts at all, and in instances of limited destruction of the kidney the casts are absent in the necrosed part, though present in those portions where there is no alteration of the epithelium. It is thus probable that in the kidney at least the croupous coagulation of albumen is to be ascribed to the influence of living cells upon the coagulable albuminates of the albuminous urine.

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[1] Centralblatt für die medicinischen Wissenschaften, 1879, xxix. 513.

Œdema from Passive Congestion. — It has been long considered that an obstacle to the escape of venous blood from a part was a sufficient cause for œdema. Ranvier, however, from experiments made upon dogs, concluded that an obliteration of the veins alone did not produce œdema; but that this might occur, paralysis of the vaso-motor nerves must also be present. Subsequent experiments made by other observers have not been decisive nor free from possible complications, and Sotnitschewsky[1] has therefore endeavored to determine whether venous obstruction alone suffices to give rise to œdema, or whether a nervous paralysis is also essential. He found that if the larger veins of the dog were tied œdema did not occur, but this result followed when the smaller veins were cut off from the circulation by the introduction of plaster of Paris, which was permitted to set. The lymph thus accumulating presented all the qualities of stagnant rather than of inflammatory lymph, being fluid, red, with many red blood-corpuscles, though with but few white ones, and coagulated slowly, the clot being soft. It thus became evident that a paralysis of the nerves was unnecessary; furthermore, the microscopical examination showed an infiltration of the tissues, with red corpuscles rather than with white, as observed by Ranvier.

The writer explains the result of Ranvier's experiment as follows: An œdema did not follow the ligature of the inferior vena cava, as the collateral circulation prevented any great venous stagnation. After the vaso-motor nerves were cut, however, the arteries became widened, and such an increased quantity of blood was thus supplied that the venous channels no longer sufficed to insure its rapid removal. Passive congestion and transudation then result in consequence of the increased intra-venous pressure. Cohnheim's experiments in this direction favor such an explanation, and it is not to be considered that the section of the nerves is in any way an important factor in the occurrence of this form of œdema. The essential condition for the production of œdema from stagnation is such an obstruction to the venous outflow as is not neutralized by the existing collateral circulation. Such an incompetency exists when a ligature is placed about the entire limb, or when the collateral vessels are plugged with thrombi, and when there is an absence or scanty development of collateral vessels, as is to be found in the portal circulation.

Absorption by the Peritonæum. — In a communication to the Silesian Society for Internal Improvement, Ponfick[2] calls attention to the results of his experiments on animals and patients with regard to the absorption of defibrinated blood introduced into the peritoneal cavity. The experiments on animals showed that the blood was rapidly absorbed, and but little local reaction was present. A successful result followed the transfusion of blood into the peritoneal cavity of three patients, only moderate fever and slight abdominal pain resulting, both of which rapidly subsided. In one case the benefit was very marked. The apparatus consisted merely of a rubber tube connecting a canula provided with a stop-cock and a funnel. The latter being filled with defibrinated blood, the canula was pushed through the abdominal wall and the fluid allowed to gravitate from the funnel. Additional defibrinated blood was poured into the instrument when necessary. The quantity thus introduced was two hundred and twenty grams in one case, two hundred and fifty grams in another, and three hundred and fifty grams in the third. The last quantity was not considered as representing the possible maximum.

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[1] Virchow's Archiv, 1879, lxxvii. 85.

[2] Allgemeine medicinische Central-Zeitung, 1879, lxxi. 912.

(*To be concluded.*)

EXTRACTS FROM THE RECORDS OF THE ROXBURY SOCIETY FOR MEDICAL IMPROVEMENT.

F. W. GOSS, M. D., SECRETARY.

November, 1878. *Cheyne-Stokes Respiration.* — Dr. Edes read a paper on this affection. The phenomenon in question consists in a rhythmical change in the vigor and depth of the respirations, somewhat as follows: Beginning with a period at which the respiration is of exaggerated intensity, sometimes being even *dyspnée*, the depth of the respirations becomes gradually less and less, until they are nearly, and then quite, imperceptible to ordinary observation and to auscultation. No cyanosis or indication of distress or *besoin de respirer* is, however, to be noticed. After a duration of some seconds a just perceptible respiratory movement is to be seen, succeeded by a more ample one, and so on until the maximum of activity is reached, which may be either a full, ordinary respiration, or one sufficiently labored to be termed *dyspnée.* In many cases movements of various muscles, more or less voluntary, have been observed; among others, dilatation of the pupils, general movements of the body, turning over, or twitching of the limbs are not uncommon, occurring at the end of the apnœa, or with the shallow respirations which first succeed it. This form of respiration should not be confounded with that due to the falling backward of the tongue or to a paralytic condition of the glottis. It is evident that the phenomena of Cheyne-Stokes respiration are due to a lack of irritability of the nervous centres in the medulla oblongata, so that they fail to respond to their usual stimulus, namely, an excess of carbonic acid. The phenomenon has probably less value as an element in diagnosis than was at first supposed. It was thought by Stokes to be associated with fatty degeneration of the heart, but has now been seen in connection with other diseases of the heart, brain, and kidneys. The paper closed with a report of five cases of Cheyne-Stokes respiration, four of which occurred in members of the same family, namely, father, mother, and two sons. — Dr. Bolles asked if the peculiar respiration sometimes noticed in cases of compression of the brain would be excluded from examples of Cheyne-Stokes respiration. In such cases the respiration grows less and less perceptible, then dies away; then comes a gasp, a long respiration, after which it dies away as before. — DR. EDES replied that the phenomenon was different, but that it very likely was somewhat analogous to Cheyne-Stokes respiration.

DECEMBER, 1878. *Cause of Puerperal Convulsions.* — DR. E. T. WILLIAMS read a paper on this subject, in which he protested against the correctness of the common view that puerperal convulsions are of necessity due to uræmic poisoning. He would acknowledge that the latter may be an important factor in many cases, that it may be an *exciting* cause; but he was wholly unprepared to allow that it is the *real* and *essential* cause, preferring to consider the disease as simply the climax of nervous excitation reflected from the irritated uterus upon the brain. The reasons for questioning the uræmic theory may be stated as follows: (1.) Puerperal convulsions may occur without evidence of renal affection, that is to say, without albuminuria or any evident diminution of the urinary flow. (2.) Extreme anasarca and albuminuria are phenomena constantly recurring, and yet labor often goes on without the slightest trouble. (3.) The ordinary effect of uræmic poisoning in the non-pregnant state, that is, in Bright's disease, is rather coma than convulsions. The latter may, to be sure, occur, but the poison, be it urea, carbonate of ammonia, or what not, acts as a *narcotic* poison. It is to be borne in mind that convulsions do occur in nearly all forms of narcotic poisoning. The clinical difference between genuine uræmic poisoning (from Bright's disease) and an ordinary case of puerperal convulsions is sufficiently marked in most cases to strike even a very careless observer. Puerperal convulsions are most like those of infancy arising from cerebral disease and the ordinary epileptic fit; but no one has suggested uræmia as the cause of these affections. The pathology of an ordinary convulsive attack consists in a high degree of irritation of the motor region of the brain or medulla, which irritation may be either *centric*, as in the case of injuries, inflammations, morbid growths, etc., or *eccentric* or reflex, from the same causes acting in distant parts of the body. The cases of convulsions due to cerebral hyperæmia or anæmia and those due to the action of poisons circulating in the blood, and acting by direct contact, probably, with the cerebral structure, may properly be classed as centric convulsions. In pregnancy we have an organ richly supplied with nerves, connected with the stomach, brain, kidneys, and other organs by the closest sympathies, which is brought into a state of peculiar functional activity. The rest of the system naturally participates. About the period of labor, the crowning act of the whole, this excitement reaches its acme. What wonder if the brain is sometimes dragged into sympathy to such an extent as to break forth into the manifestations of uncontrollable excitement! But how do we account on this theory for the almost constant existence of albuminuria in these cases? The same power of nervous sympathy which produces reflex irritation of the brain may produce a reflex irritation of the kidneys and urinary organs. The renal irritation thus excited shows itself by albuminuria and diminution of the urinary secretion, retention of urea and other urinary products in the blood. These in turn give rise to uræmic poisoning, and aggravation of the nervous excitement or irritation already existing. The reader did not deny the importance of this factor as a complication of the case; he only objected to its being considered as the essential cause of the disease, and hence as the principal indication for treatment. — DR. EDES remarked that undoubtedly there are cases of puerperal convulsions without evidence of renal disease, but usually there is albumen or casts, or both, in the urine. Some women have chronic trouble with the kidneys, and yet not always convulsions in pregnancy. Some seven or eight years ago a physician sent him the urine of a patient who had had puerperal convulsions. The kidneys were found to be diseased, and they still remain so. Yet she has been a second time confined without convulsions. Some remarks having been made as to the use of opium in puerperal convulsions, Dr. Edes said that, according to one theory, there is anæmia of the brain in such cases, and there would be no contra-indication of its use then. Even intra-cranial hæmorrhage may not contra-indicate its use. The degeneration of the kidneys causes that of the blood-vessels.

APRIL, 1879. *Case of Typhoid Fever; Collapse; Resuscitation by Atropia given subcutaneously.*

DR. BOLLES reported the case, that of a manufacturer, aged forty, who had enjoyed average health. Two and a half years before he had an attack of dysentery, from which he recovered slowly. The present illness began with pain and distress in the stomach, with abundant formation of gas in the intestinal tract, and vomiting. When seen by Dr. Bolles his appearance was that of one suffering from acute dyspepsia. He had had headache for a fortnight. Pulse but little accelerated. Temperature 101° F. The next day the abdomen was still distended with wind, and the headache was severe. The lungs were examined with negative results. The abdomen and epigastrium were tender to the touch. The headache continued for the succeeding ten days, but the distress from flatulence was less, and the tenderness over the stomach was diminished. There was some soreness in the right iliac region, but it was not uniform nor constant. The bowels had been loose the day before, and four ochre-colored stools were passed on the fourth night, the result of a small dose of magnesia. The temperature rose slowly and uniformly each day, higher at night than in the morning, till it reached, on the tenth day, 104° F. The pulse continued at 70. There was delirium at night, and deafness and dullness of intellect supervened. After the fourth day the bowels ceased to move spontaneously. Directions having been given that if his temperature reached 105° F. the patient should be put in a wet sheet, this was done by the nurse on the tenth day. The temperature not declining, he was kept in it for two hours, and the bodily heat did not then lessen. He slept badly, and was in high fever during the following night, but seemed brighter and better on the eleventh day. On the twelfth there were dullness and bronchial respiration over the lower half of the right lung, evidence of lobar pneumonia, which probably began two or three days before, at the time of the highest temperature and the wet pack. On the thirteenth and fourteenth days, without being otherwise delirious, the patient became sullen and silent. His temperature had fallen to 101° F. Spasmodic twitchings of an opisthotonic character, which had been present for a number of days, were increasing. At three o'clock at night he suddenly collapsed without apparent cause, and became bathed in a cold, clammy sweat. The body felt like a wet and half-cold corpse. He was rational, but passive; without pain or discomfort, but excessively weak. The temperature dropped from 101° F. to 95.6° F., and afterwards to 95° F. The pulse varied between 40 and 52, and the respirations between 11 and 16. The nurse had already given three full doses of brandy by the mouth, and afterwards more by the rectum, without any sign of rallying the patient, when, at 8 15 A. M., Dr. Bolles gave a few drops of brandy subcutaneously, raising the pulse from 40 to 52. This was five and a quarter hours after the beginning of the collapse, and was just after a sinking spell in which the nurse thought him to be dying. The sweating continued unabated, the temperature as low as before, when, as a cardiac and respiratory stimulant, one fiftieth of a grain of the sulphate of atropia was given subcutaneously. The pulse was then 52, respiration 12 to 14, temperature

95.6° F. In a few minutes the pulse became perceptibly quicker and stronger, and at ten o'clock, half an hour later, Dr. Bolles recorded: "Has asked for water twice. Pulse stronger, 88. Limbs feel warmer; face with more color. Used bed-pan, and passed injections of brandy, displaying considerable strength. No perspiration. Respiration 17." At noon the face was flushed from the atropia; pulse 80; respiration 13 to 15; temperature 96.8° F. At seven P. M., pulse 76, temperature 97.8° F. The twitchings before mentioned continued, especially when the room was quiet. There was a strong opisthotonic jerk, awaking the patient if he was asleep, and startling him if awake. Subsultus tendinum and carphologia, which had been observed for several days, were increasing. At three P. M., twelve hours after the collapse, the temperature was 98.2° F.; respiration 15; pulse 70. At 3.30 P. M. brandy and atropia (one hundredth of a grain) were given. At 9.30 P. M. he was fairly out of the collapse. The next day, the sixteenth, he lay delirious, and in a state of obstinate vigilance. This state continued with frequent opisthotonic jerks, which he would keep up for hours. In these spasms he would roll his eyes gradually upwards by a series of slight jerks, as though trying to look at something over his head. Then his head, by a similar series of jerks, would bend back into the pillow, and partially lift the shoulders from the bed, when a final twitch would end the performance, and he would settle down into a natural position, immediately to go through the same act again. On the eighteenth day he became wild, and failed to recognize his attendants. On this day he had two spells of convulsions, an exaggeration of those already described, after which he fell into a spurious coma, and later into a more natural sleep. Vomiting coming on, he was fed for the next day or two by the rectum. Afterwards convalescence became established. The urine was never abnormal.

DR. GOSS asked if the wet pack had anything to do with bringing on the pneumonia. — DR. BOLLES replied that he thought it was already coming on when the wet sheet was employed, although had he known it he would not have advised the pack. — DR. WILLIAMS asked if the convulsions were tonic. — DR. BOLLES said that it was a question if they were not hysterical. It was remarkable when the temperature was 95.6° F. for six hours, and 96° F. for several hours more, that recovery should have taken place. It seemed as though the heart and lungs would stop from sluggishness. He believed the atropia by stimulating these organs saved the man's life. — DR. EDES, who saw the case in consultation, remarked that when he was called the evidence of typhoid fever was not satisfactory to him, that of the pneumonia was clear.

PROCEEDINGS OF THE CONNECTICUT RIVER VALLEY MEDICAL ASSOCIATION.

A. P. RICHARDSON, M. D., CORRESPONDING SECRETARY.

NOVEMBER 30, 1879. An interesting paper was read by Dr. Allen, of Acworth, N. H., on the Circulation of the Blood. — In the discussion which followed, Dr. Allen, of White River Junction, Vt., remarked upon the effect of high altitude upon valvular disease of the heart, stating that it would be unfavorable.

Quinine. — The president, Dr. Nichols, read a paper on the therapeutical uses of quinine. He compared the present use of this drug with that of thirty-five years ago. In non-malarial neuralgia it aggravates the pain, and is not useful in such cases. As a febrifuge it is of great value. Its influence on the uterus in labor he has not been able to detect, but has given it in doses of five and ten grains to twenty-five cases within two years, with no apparent effect, except in one case, when it may have increased the pains. His most common use of quinine is as a tonic, especially useful when the skin is flabby and there is an inclination to perspiration. — Dr. Crain remarked that he had seen no appreciable effect of quinine upon the pregnant uterus. In the paroxysm of intermittent fever he had administered drachm doses, thereby breaking the fever, and thought that large doses produced no worse head symptoms than small ones. — Dr. Allen would give quinine in the paroxysm, and not in the cold stage of the fever. — Dr. Furness had himself taken one hundred grains in ten hours, in the intervals of the paroxyms, his axillary temperature in the hot stage being 108.5° F. — Dr. Cummings gives ten or twelve grain doses in intermittent fever. He had given quinine to pregnant women suffering with malarial fever, with no uterine effect. In typhoid fever and pneumonia, Dr. Furness gives from twenty to forty-five grains of quinine, in the evening by preference, to lower the temperature, and always breaks a high range of temperature with two or three doses. Has treated twenty-five cases of typhoid fever within the last two years. Twenty or thirty grains generally reduce the temperature three or four degrees. Such doses were thought to weaken the heart while reducing the temperature. — Dr. Holton said that quinine was an oxytocic only when the woman was worn, from its effect upon the nervous system, influencing the motor nerves through the sympathetic system.

Thrombosis. — Dr. Holton read a paper upon this subject, after which he related in detail the circumstances attending the recent death of Rev. Horace Burchard, of Brattleboro', Vt. The autopsy revealed an embolus in the right ventricle of the heart, half an inch wide and five and one half inches long.

Apoplexy in a Boy Fifteen Years Old. — Dr. Tyrrill reported the case. A boy, apparently healthy, was quietly playing, complained of violent headache, and died within a few minutes. There was no history of injury. Post-mortem examination revealed extensive clots over the cerebellum.

Peritonitis. — Dr. Nichols reported a case, still under treatment, of distinct abscesses following idiopathic peritoneal inflammation in a female recently married. Ten ounces of pus were aspirated from the right side of the abdomen near the umbilicus. On the left side there was effusion. The patient was in a septic condition.

Typhoid Fever. — Dr. Crain exhibited specimen of an ulcerated ileum from a recent case of typhoid fever. — Dr. Furness, physician at the Windsor state prison, said there had been ten cases of typhoid fever at that institution since August 1st. Last year there were twenty-five cases. He attributed the cause to bad ventilation, the air being vitiated by the excretions of the inmates. The attention of the National Board of Health has been called to these facts, and the prison visited by its representative.

Spontaneous Closure of Punctured Wound of Bladder. — A farmer, aged thirty-two, while descending from a hay-mow fell, striking upon a sharp cart-stake fourteen inches long and two inches in diameter at the base. The stake entered the body posterior to the anus, penetrating the bowel; then taking a direction upward and forward, it passed through the anterior wall of the rectum, and punctured the bladder, probably near the neck. The bowel was found distended with fæcal matter, and was cleansed, as was also the wound, with carbolized water. Three ounces of bloody urine were drawn by the catheter. The after-treatment consisted of rest and cleanliness, the wound being syringed twice daily; the urine was drawn every three hours by means of a soft-rubber catheter, but dribbled through the wound for three weeks. The temperature did not rise above 102° F., and there was little tenderness of the bowels. Recovery was complete in six weeks.

On account of the remarkable state of good health and almost entire freedom from epidemic disease reported up and down the Connecticut River Valley for the past year, it was voted that the records be made to show the fact.

HEALTH PRIMERS.

The attention to health on the part of intelligent people of all classes, in France, Germany, England, and the United States, has lately become so great that a special literature has been found necessary to meet the demand for information on sanitary matters. Although these books are often suggestive and useful to the physician, their chief advantage consists in combining scientific knowledge with a plain style, free from technicalities, and designed for persons who know very little of the subject. Baths and Bathing, of the English series. republished by Messrs. D. Appleton & Co., treats of the physiological action of baths, the varieties of baths, bathing localities, the uses of baths, and a visit to a bath in so clear and concise a way as to make it fully deserve the high commendation which we have already given to the others of the series. Messrs. Lindsay and Blakiston are also issuing health primers adapted to American wants, which in many respects are quite different from those of other countries. We have already received Long Life and How to Reach It, by Prof. J. G. Richardson, a work of many excellences, although we feel bound to express the opinion that the author has overstated the prevalence of adulteration in food, the danger of tape-worm from underdone *beef*, and the risk of trichinosis. It is new to us that vinegar made — "often manufactured" — from dilute sulphuric acid would be "apt to bring on diarrhœa, dysentery, and ulceration of the bowels." Summer and its Diseases, by Dr. James C. Wilson, and Winter and its Dangers, by Dr. Hamilton Osgood, are especially valuable in our climate, and should have a wide circulation. General attention to their suggestions would save many an illness, prevent long years of suffering from chronic disease or ill health, and postpone undertakers' bills.

BARTHOLOW ON HYPODERMIC MEDICATION.[1]

The facility and certainty which attend the use of drugs administered by the hypodermic method, and the many new agents which have been found to be of more or less value since the first edition of this useful manual was printed, have called for a revision of the whole subject. Beside important additions to the therapeutics of those drugs which have long been in general use, the author presents new chapters on the Morphia Habit and its Treatment, Duboisia, Pilocarpine, Chloroform, Chloral Hydrate, Apomorphia, and Aquapuncture. The opinions of the best English, French, and German physicians are fully set forth, and the author's own views are fortified by the results of careful experiments upon several colleagues, made with especial reference to the action of morphine and atropine. In the use of morphia attention is called to the varying susceptibilities of patients, and to the fact that the first dose should not be more than one third of that ordinarily administered internally. One twelfth of a grain is thought to be enough in many instances, and it is said that the maximum doses may be safely injected if combined with atropia. The various uses of pilocarpine are given, with a caution against its employment in cases where there is a weak heart, and a statement that it has the power to abort an impending ague chill.

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[1] *The Treatment of Diseases by the Hypodermic Method: A Manual of Hypodermic Medication.* By Roberts Bartholow, M. A., M. D., LL. D., Professor of Materia Medica and General Therapeutics in the Jefferson Medical College, of Philadelphia, etc. Third Edition, enlarged. Philadelphia: J. B. Lippincott & Co. London, 16 Southampton Street, Covent Garden. 1879.

Professor Bartholow draws a true but melancholy picture of the extent to which the morphia habit, often formed in consequence of the legitimate use of the hypodermic syringe, now prevails; he says, " No matter how much the original prescription may have been justified in the condition of the patient, if the habit be formed, the mental and moral degradation which ensues will always be referred to as the blunder or the crime of Dr. So-and-so."

The appearance of the volume is particularly attractive, and it is to be commended as the best work published on the hypodermic method.

HABERSHON ON DISEASES OF THE STOMACH.[1]

This is a very careful and complete little treatise on the varieties of dyspepsia, their causes, and modes of treatment; ulceration and cancerous disease of the stomach; and, finally, spasm of its muscular structure. The author lays stress upon the general sympathy of the stomach in disease, discusses at length the symptoms of gastric affections, and then enumerates and describes the many forms of dyspepsia as depending upon weakness, congestion, inflammation, mechanical causes, fermentation, rheumatism, gout, diseases of the liver kidneys, duodenum, brain, lungs, and uterus. The hypochondriacal form also receives appropriate notice. As the source of dyspeptic ailments is often involved in obscurity, all aids in discrimination are of importance, and the fact that this work has reached a third edition is an indication of its value.

A CIRCULAR FROM THE MASSACHUSETTS STATE BOARD OF HEALTH.

We have received from the secretary of the State Board of Health and various other things a circular, which has been sent to physicians throughout the State, stating that " the health department is very desirous to get as much information as possible with regard to disease caused by bad sanitary arrangements in country hotels and boarding-houses, to which people naturally resort for the benefit of pure air." Those receiving this circular are requested to give in the table prepared for the purpose any cases they may have observed, during the year 1879, of "diarrhœa, sore throat, tonsillitis, erysipelas, dysentery, typhoid fever, cerebro-spinal meningitis, or diphtheria, fairly attributable to bad sanitary arrangements in country boarding-houses and hotels; also to state what, if any, other diseases have been more severe in their course or fatal in their result by such sanitary defects, noting the situation and condition of wells drains, vaults, cess-pools, barn-yards, etc.; the presence of decaying organic matter, dampness, or water in cellars; the character of the soil; exposure of sleeping-rooms to drain emanations, etc." Negative statements are also requested, and, when desired, information will be regarded as confidential.

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[1] *On Diseases of the Stomach, the Varieties of Dyspepsia, their Diagnosis and Treatment.* By S. O. Habershon, M. D. Lond., Fellow of the Royal College of Physicians, etc. Third Edition. Philadelphia: Lindsay and Blakiston. 1879.

We sincerely hope that this opportune effort of the health department may meet with deserved success in extending our knowledge on the subjects in regard to which information is sought, and in checking avoidable disease by which every year many unnecessary victims are carried off. We hope every physician receiving the circular, and especially those practicing in summer at country resorts and watering-places, will take the time and trouble to reply fully and carefully to the questions asked, and to give the results of his individual experience, even if it be of a negative character. The too common apathy which neglects to contribute to the end which the department has in view is a sin not of omission, but of commission, and the medical man who omits to warn against a nuisance is almost as guilty as the proprietor who persists in preserving it.

There are two kinds of summer habitations in making the acquaintance of which it is prudent to begin with a little aversion, namely, the hastily-constructed hotel of the modern mushroom watering-place, and the old-fashioned farm-house, where conservatism lodges several families under a roof designed to cover one. Pure air, at least, the country and the sea-shore should afford. Fashion in hygiene and consequent commercial considerations will do much to correct evils, but the cordial coöperation of the profession is needed to prevent them. Two useful papers containing suggestions for preventing the spread of scarlet fever and diphtheria accompany the circular.

A DIRECTORY FOR NURSES.

The announcement of the immediate opening of a new directory for nurses in the Medical Library Building in this city appears in our present issue. We gladly take this opportunity to call the especial attention of our readers and of the general public to it. We say a new directory of nurses, though we believe a registration upon a similar scale and systematized method has not before been attempted, at least in this city. Much pains have been taken by the management, which is composed of three experienced ladies and two active physicians, to consult the reasonable requirements of the public, of the profession, and of the nurses themselves, and the directory can hardly fail, we feel assured, to prove of the greatest convenience to all.

In addition to the names and residences of nurses, there will be a registry of their engagements, their especial acquirements and aptitudes, their charges, and their references to physicians and previous employers, with such information as may be derived from these sources in regard to each individual. Applications from the country by letter or telegram will receive prompt attention. We are informed that already more than sixty nurses are registered, including many of the graduates of the training schools, and this number will without doubt be much increased when once the directory is in active operation.

To the necessity for such a registry there is from all sides the most ample testimony: from physicians, who may have spent several hours in driving about the city for a desirable nurse, — and this is not an uncommon experience; from the laity, who frequently arrive at the real character or acquirements of a nurse by personal experience only; and from nurses, who, though capable, often find great difficulty at first in bringing themselves to the notice of the public.

We congratulate the management upon the zeal and energy which they have shown in making provision for this acknowledged necessity.

JAMES AITKEN MEIGS.

LIKE a thunder-bolt from a clear sky to the friends of Jefferson College comes the announcement of the death of Professor Meigs, after an illness of a week's duration. Possessed of an apparently invulnerable constitution, to which the exactions of a large practice were a pastime, attending at one period more than two hundred and fifty obstetrical cases in a year without any perceptible injury to his health, delivering from two to four lectures a week during the greater part of the year, in addition to attendance upon a large private practice, he was a marvel of application and industry to those acquainted with him. His organization appeared the embodiment of vigorous health, and gave every promise of a green old age, especially as he was remarkably temperate, even abstemious, in his habits. It has been said that he had never been known to miss a lecture on account of ill health until the few days preceding his death. His last lecture was delivered at Jefferson College, on Saturday, November 1, 1879, when he spoke with his usual earnestness and vigor, closing with the significant words, "Gentlemen, what I am seeking to impress upon your minds is that, physiologically speaking, a man's age is not to be measured by his years."

Professor Meigs was always a favorite with, as he was a true friend to, the students, winning their confidence by his kind and sympathetic manner, invariably having words of encouragement for them after referring to his own early struggles. Having a pleasant word for all he met, never too busy to stop and chat, he was ever welcome in the sick-room, and won the regard, as he had already the respect, of his patients. Having such eminently social qualities, it was a matter of surprise to his friends that he never married; but he stated that, having been always a great student, he could never find the time for it at the period of life when he was most likely to contract such an engagement.

At the time of his death, and for several years previous, he was collecting the material for an extensive treatise on the subject of Woman's Place in History, in which he intended to show in what way the current of history, in numberless instances, had been changed, and the course of its chief actors directed by the hidden influence of some member of the weaker sex. If the writer correctly understood his meaning, from various conversations on the subject, he held the opinion that the mind of woman was of finer fibre, her intuitions more clear, her mental processes of a higher type, than those of man, but that her weaker physical organization had kept her in the background, where her contribution to history has been generally overlooked in a mere record of events, except in some isolated cases. Such a work as he proposed would have been a most valuable contribution to the philosophy of history, and from the fact of his systematic and thorough manner of study and his wonderfully retentive memory, aided by his very facile and interesting style of writing, it is certain that it would have been very acceptably done, and would have established the author's reputation as an original thinker and indefatigable student, of which he had already given proof in his writings. He had also in prospect the compilation of a bibliography of physiology, which should include everything that had been contributed to this department of medical science. It is believed that fragments of both of these large works are among his papers, but in all probability not sufficiently complete for publication. It will be remembered that Professor Meigs delivered a valedictory poem to the last graduating class of Jefferson College, which gave evidence of unusual powers, correct taste, and graceful expression. For his theme he selected the Epithalamium of the Young Physician in taking Fair Hygeia as his Bride. The poem received many flattering notices from the press.

The reputation of Professor Meigs as an ethnologist, in which character he is most widely known, was established by his labors at the Academy of Natural Sciences in Philadelphia, while in the preparation of a systematic catalogue for the academy. He contributed to Nott and Gliddon's Indigenous Races of the Earth an essay on the Cranial Characteristics of the Races of Men, — an essay which showed an intimate acquaintance with the subject, presenting as it does a general survey of human skulls in their ethnical relation. To the Proceedings of the Academy of Natural Sciences, the Reports of the Smithsonian Institution, and other like publications, he has contributed at various times many original articles on craniography, such as Hints to Craniographers upon the Importance and Feasibility of establishing some Uniform System by which the Collection and Promulgation of Craniological Statistics and the Exchange of Duplicate Crania may be Promoted; Description of a Deformed, Fragmentary Human Skull, found in an Ancient Quarry Cave at Jerusalem; Observations on the Form of the Occiput in Various Races of Men; On the Mensuration of the Human Skull; and Observations on the Cranial Forms of the American Aborigines, as well as numerous reviews, etc. In October, 1872, he delivered an address at the laying of the corner-stone of the new building for the Academy of Natural Sciences in Philadelphia.

A native of Philadelphia, Dr. Meigs was educated at the public schools of this city, and was graduated at the Jefferson Medical College in 1851. He was the assistant of Prof. Francis Gurney Smith at the Pennsylvania College, and succeeded him in the chair of physiology (in 1859), which he retained until 1861, when he, with several of his colleagues, resigned. In June, 1868, he was elected to the position of professor of the institutes of medicine and medical jurisprudence at the Jefferson Medical College, which he filled with exceptional ability up to the time of his death. He was physician to the dispensary known as the Howard Hospital for thirteen years, and was for several years attending physician to the Philadelphia and afterwards to the Pennsylvania Hospitals. He was also one of the board of trustees of the Polytechnic College of the State of Pennsylvania. He had in nearly thirty years' practice been unusually successful, and acquired considerable means. Of his immediate family his father alone survives him; he will be sincerely mourned by the many who had experienced his native goodness of heart and his sympathizing disposition.

Professor Meigs died of pyæmia at his residence in Philadelphia, on Sunday, the 9th of November, 1879, aged fifty years.

MEDICAL NOTES.

— We were pleased to notice last summer that the Hingham Steamboat Company and the Boston and Lowell Railroad Company had employed a competent specialist for the examination of the color sense and the visual power of their employees. With the rest of the community we supposed that the tests of the railroad *personnel* since reported by the daily press were also conducted in a similar thorough manner. It seems, however, that these have been carried out by the railroad commissioners, without expert assistance, and they, according to the papers, have even detailed a *conductor* to examine the employees of the Fitchburg Railroad. The whole thing would be amusing, were it not that danger for the public is concerned. The control of color-blindness and visual power will come here, as in Europe, as a matter of necessity. On the foreign roads not even the regularly appointed railroad surgeons were found competent to make the necessary examinations, and their work had to be done over again by ophthalmic experts.

— The stand taken by the daily press of this city in regard to the exclusion of religious dogmas from the public school curriculum meets with our hearty approval. We could wish that our contemporaries were as little influenced by exclusive medical dogmas.

— The Boston correspondent of the *Chicago Examiner* makes the following pertinent remarks on the recent action of the council of the Massachusetts Medical Society: "The question having been brought to an issue, it is thought that the effect of the decision will be practically trivial. In New York and Rhode Island, medical societies have opened their examinations to women, but less than a half dozen of the latter have been successful. In our State the censors have made the examination so rigorous that it is by no means easy for a medical graduate to pass. I need not say that the stronger minds hope the noble old society will not lose its time-honored dignity. It will be severely tried by the admission of women, and it will not be surprising if many members refuse to attend the annual meetings. Notwithstanding the fact that the council is composed of one out of every eight members from all parts of the State, the very small majority is a strong indication that if the vote could be taken in general meeting the result would be the reverse. One thing is absolutely certain: if the decision were left in the hands of the Boston members of the society, it would bring forth a decided no.

"On the other hand, if women are to be admitted, the question of their medical education at once comes to the surface. And this, perhaps, will reopen that other question, namely, their admission to the Harvard Medical School on equal terms with men. Otherwise, how can Massachusetts women secure a medical education of such quality as will fairly admit them to the society? In spite of the decision of the councilors of the society, this matter is by no means settled.

"If the doors of the Harvard Medical School are ever opened to women it will be by the overweening influence of non-medical committees, whose members do not begin to conceive what it means to unite young women with young men in the co-study of medicine, surgery, and obstetrics.

"No delicate, womanly woman can thus unsex herself. And the women who can associate themselves with men in a full course of medicine and surgery are precisely those who lose that chivalric respect which manly men feel for true womanhood.

"Far be it from all broad minds to object to the adoption of a medical life by women, but let them have their own schools; otherwise female medical students will become a sort of *genus*, a distinctive class of women."

— Professor Dépaul (*Gaz. des Hôp.*) urges the usefulness of auscultation in uterine hæmorrhage during labor, and illustrates by a case in which, as the head was approaching the vulva, two or three spoonfuls of blood suddenly appeared between the thighs of the patient. Dépaul at once auscultated the uterus, and found the fœtal heart beating irregularly. This indicated that the child was suffering, and hence delivery was hastened. This procedure in similar cases is earnestly recommended by Dépaul, not only for the sake of the child, but because when hæmorrhage occurs during labor it generally indicates a partial detachment of the placenta, and thus endangers the life of the mother.

— Chemical analysis having long shown that the waters of the Dead Sea in Palestine are rich in chlorate of potash, a company has been formed, and already commenced operations to extract this salt from its waters. It is stated that in this way chlorate of potash can be obtained thirty per cent. cheaper than by the cheapest process thus far known.

— Hot water is used to a considerable extent in many of our hospitals as an application to wounds, after surgical operations, to check oozing, which seems to be especially liable to follow the use of the Esmarch bandage. As a hæmostatic this agent is very efficient, and commends itself to surgeons. It is thought, however, by some who have used it that it favors granulation rather than union by first intention.

— The *Medical Press and Circular* copies the following case from *Nature:* "A young carpenter received on his right foot a blow from an axe. The big toe was almost completely detached. Dr. Gavey, being called, removed the toe, washed it and the wound on the foot, adapted the cut surfaces one to the other, bound them together by means of lint saturated with collodion and applied along the toe. When the collodion had hardened another strip of similar lint was bound around the wound. The foot was then rendered immovable by an apparatus. At the end of twelve days there was no unpleasant odor; at the expiration of twenty-four cicatrization was perfect." These details are somewhat meagre, no mention being made of the dressing used. The *Press and Circular*, however, infers that antiseptic precautions were employed, but thinks the prompt succor might have been equally successful under the old method.

— The *Virginia Medical Monthly* quotes the very sensible remarks of Drs. Davis and Routh on the danger of feeding infants upon starchy foods, arrowroot, corn starch, tapioca, rice, oatmeal, crackers, bread, etc. Until after dentition diastase is not secreted by the salivary glands; starch food therefore remains in the stomach and intestines as a non-assimilable, foreign substance, whose tendency is to irritate the delicate mucous membrane. Dr. Routh says: "I cannot conceive anything more injurious than arrowroot feeding. I believe it is a cause of the death of many infants." Before dentition nothing can take the place of or add to the nourishing properties of milk.

— We have just received Lindsay and Blakiston's Visiting List for 1880. It contains, beside blank leaves for the visiting list, spaces for every description of memoranda, directions for antidotes for poisons, the metric system, table for calculating the period of pregnancy, and many other useful facts.

NEW YORK.

— The issue of the *Sanitary Enquirer* for November 1st gives full details of the terms of the five-hundred-dollar competition for a model school-house, and announces the committee of award as follows: George B. Post, New York, John S. Billings, M. D., U. S. A., John D. Philbrick, LL. D., Boston, Prof. William R. Ware, Boston, and C. R. Agnew, M. D., New York. It also contains the first of a series of articles by Dr. D. F. Lincoln, of Boston, and other experts on sanitary school construction.

— At the last meeting of the board of trustees of St. John's Guild, the Rev. John W. Kramer, D. D., rector of the Church of St. John the Evangelist, was unanimously elected master of the guild. Dr. Kramer has been for a number of years an active member of the State Charities Aid Association, and will no doubt make a very efficient officer of this society, which has accomplished so much good by the excursions of its floating hospital during the past few summers.

— Dr. Oliver White, an old and prominent physician, died November 7th, He received the degree of M. D. at Yale in 1831, and has practiced his profession in New York ever since. He has been president of the County Medical Society, and vice-president of the Academy of Medicine, of which he was one of the founders, and at the time of his death was president of the medical board of the Presbyterian Hospital.

— Dr. John Jay Abernethy, medical director United States army, who recently died in this city, in the seventy-fifth year of his age, bequeathed the sum of $10,000 to Yale College.

— Ex-Governor E. D. Morgan has made a generous donation of $25,000 to the Manhattan Eye and Ear Hospital, a worthy institution, which has thereby been placed upon a solid and permanent financial basis.

PHILADELPHIA.

— The vacancy, caused by the death of Professor Meigs, in the chair of physiology at the Jefferson Medical College has been filled, by unanimous vote of the faculty and with the concurrence of the board of trustees, by the appointment of Dr. Henry C. Chapman to lecture during the remainder of the term. Dr. Chapman has been for the last two years demonstrator of experimental physiology to the college, and during that period has lectured in the spring and summer course. He has also been, for several years, professor of physiology at the Pennsylvania Dental College, where he delivers a systematic course of lectures on this subject each winter. Dr. Chapman was graduated at the Pennsylvania University, Department of Arts, in 1864. In 1867 he took his degree from the medical department, and was subsequently resident physician at the Pennsylvania Hospital for two years. During the prolonged illness of Prof. F. Gurney Smith, Dr. Chapman delivered a course of lectures on physiology to the class at the University of Pennsylvania. In 1877 he also received a degree from Jefferson College. He has been physician to the coroner for the last five years; prosector to the Zoölogical Society; member of the Philadelphia Academy of Natural Sciences, and the American Philosophical and other societies. He has written a popular work explaining the principal facts of embryology and evolution, and has contributed a number of papers to the Proceedings of the Academy of Natural Sciences, chiefly upon topics relating to comparative anatomy, in which he has been especially interested. The college is to be congratulated upon finding so able and acceptable a lecturer to act as substitute at such short notice, and one who can proceed directly, as Dr. Chapman is now doing, without any interruption to the course.

TWINS AND CÆSAREAN SECTION.

LETTER FROM DR. MUNDÉ.

Mr. Editor, — In the Medical Notes from New York in the number of your journal for November 6, 1879, I find a report of a case of Cæsarean section recently performed at Charity Hospital, which is incorrect in several important particulars, and does injustice to the members of the staff in whose service the case occurred. As I was on duty at the Maternity Hospital at the time, and the case in question, although actually in a ward in Charity Hospital, devoted to women awaiting their confinement, was under my care (the waiting wards at Charity as well as the lying-in wards at the Maternity proper, which is a separate institution, one mile distant from Charity Hospital, are under the care of the visiting staff of Maternity, who call there only when their services are required), I feel it incumbent upon me to give the exact facts in the case.

Your correspondent states that "when she was about dying the Cæsarean section was performed upon her, and a living child was extracted from the uterus. She did not long survive the operation," and at the coroner's autopsy, on the following day, a second child was discovered in the uterus. This implies that through the negligence of the operator the second child was allowed to die *in utero*, when it might have been extracted alive as well as the first.

The truth is as follows: I was informed on the Sunday preceding the Tuesday on which the operation was performed that a woman in about the seventh month of pregnancy was in a moribund condition in one of the waiting wards, and that in case of her death *post-mortem* Cæsarean section was proposed. I saw the woman (for the first and last time), and found her so cheerful and in such good spirits, pulse strong, and intellect clear (no signs of the ill-usage on the part of her husband), that I told the chief of staff that I hardly thought we should have a Cæsarean operation in this case. I therefore merely placed my hand on the abdomen to ascertain the size of the uterus, and passed on, leaving word to be sent for in case a change took place, as I wished to perform the section myself. On the Tuesday following, on my return from my rounds, I was informed that I had been sent for at about 9.30 that morning, shortly after my departure, to come at once to Charity. Although sure of being too late, I hurried over, and found that the *woman had died* at about 10.30 A. M.; that Cæsarean section had been at once performed by the house-surgeon, and a *dead* child extracted; that the fœtal heart had been inaudible since the preceding Friday, and a living child had not been expected. The chief of staff suggested that as it was a coroner's case the parts should be as little disturbed as possible, and the abdomen was therefore at once closed without exploring the uterine cavity. In this manner the presence of a second child escaped detection. No doubt both children had been dead for several days, probably in consequence of the toxæmia of the mother, who died of uræmia from Bright's disease.

This correction of a statement which, in a similar garbled and incorrect manner, has appeared in one or more of our daily papers appears to me but an act of justice to the house-surgeon, who, I am informed, very skillfully performed the section, as well as to myself, who, as visiting surgeon on duty, might by persons knowing that fact have been supposed to have been guilty of the grave error of leaving a *living* twin child in the uterus after successfully removing the first. Yours truly, PAUL F. MUNDÉ, M. D.,

Obstetric Surgeon to Maternity Hospital, Blackwell's Island, New York.

20 WEST FORTY-FIFTH STREET, *November* 13, 1879.

SHORT COMMUNICATIONS.

LITHOLAPAXY.

STONE IN THE BLADDER OF A PATIENT EIGHTY-EIGHT YEARS OLD; BIGELOW'S OPERATION; SUCCESS PERFECT.

BY W. F. TEEVAN, B. A., F. R. C. S.,

Surgeon to the West London and St. Peter's Hospitals.

ON September 9th, in consultation with Dr. Kempe, of Ladbroke-grove-road, I saw Colonel ——, eighty-eight years of age, who served throughout the Peninsular war. From notes taken by Dr. Kempe, it appeared that the patient passed two calculi many years ago.

For a long time he had occasionally suffered from pain in the loins, and had seen red gravel in his urine. One year ago the gravel ceased to appear, and he began to be troubled with a frequent desire to micturate, and to have a dull, aching pain in the perinæum. Now and then he saw a little blood in his urine. Latterly his pains had increased, and the water had become very thick and offensive. For the past three months he had been confined to bed. During the last few weeks he had become very excitable and unmanageable. He could get but little sleep at night, as he was so frequently troubled to urinate.

When I saw him he was greatly agitated and in much pain. I introduced a very slender, short-beaked Mercier's sound, which struck a hard stone immediately it entered the bladder. The third lobe of the prostate was enlarged, but the lateral lobes were of normal size. The patient was of middle height, and decidedly muscular; and although his face was haggard from pain and want of rest, its appearance was nevertheless healthy, and his eye was clear, bright, and piercing. He was born at Beverley, in Yorkshire, the county which is reputed to produce the strongest men and the best horses in England. His mother was a native of Cambridgeshire, but he did not remember where his father was born.

When the colonel was informed of the nature of his malady he urgently demanded an operation. I submitted a specimen of his urine to Dr. George Harley for examination, who reported that there was no evidence of any renal disease. Dr. Thorowgood examined the patient's heart and lungs, and informed me that there was nothing to contraindicate an operation. Dr. Kempe and I then told the patient's relatives that an operation for the removal of the stone could be undertaken with a fair chance of success. They readily consented to what the patient so urgently desired. On September 13th, at two P. M., the patient was put under the influence of ether by Mr. T. G. Alderton. There were present Dr. Thorowgood, Mr. Butlin, Dr. Kempe, and Dr. Hubbard. In the space of twenty minutes I completely pulverized and evacuated a lithic-acid stone, measuring one inch and a quarter by one inch. The calculus was excessively hard, and the noise produced by breaking up even the smallest fragment was audible to all present. I used three lithotrites, introducing them eight times in all. The evacuating tube, No. 26, which slipped in with ease, was passed three times. The patient was sounded by Mr. Butlin, Dr. Kempe, and myself, but not a particle of stone could be discovered. There was a little blood lost at the operation, and for four days afterwards the urine was sanguineous. Much smarting was experienced for forty-eight hours whenever the water passed, but it was entirely confined to the penile urethra, and on no occasion was there the slightest pain or tenderness in the hypogastric region. The variations in the pulse and temperature were taken twice daily by Dr. Kempe. The highest temperature recorded was at six A. M. on September 15th, when it reached 101° F., the pulse being 98. The patient's progress after the operation was one of gradual improvement. The urine began to clear on the fifth day; the nights were good and the appetite was keen; and on September 24th he left his bed, to which he had been confined for three months. Five days later he went for a drive.

I last saw the colonel on October 4th. He was then absolutely free from all pain, and was very cheerful and happy. He could hold his urine for four hours, and got a good night's rest. The urine was clear, and there was no phosphatic deposit.

LIVERPOOL ROYAL INFIRMARY: CASE OF STONE IN THE BLADDER; LITHOTRITY AT ONE SITTING; REMARKS.

[Under the care of Mr. Reginald Harrison.]

The following case is noteworthy, chiefly because of the marked tendency to stone formation, the patient having previously been operated on twice by lithotomy and once by lithotrity. It further illustrates the practice recently advocated by Dr. Bigelow, of Boston, under the name of "litholapaxy." We are indebted to Mr. Renner for the notes of this case.

J. A., a ship-keeper, aged sixty-three, was admitted on April 22, 1879. Eight years before he suffered from symptoms of stone, for which he was cut, and a calculus was removed. Within a year he was again cut at another hospital, and two calculi were successfully removed. During the year previous to admission a stone was removed by lithotrity, and at the commencement of the present year the old symptoms again returned, when for the first time he came under Mr. Harrison's notice.

On admission he was suffering from frequent micturition, pain at the end of the penis, and occasional hæmaturia. The urine was purulent, and deposited phosphates in abundance. On examining him under ether with a lithotrite, a round stone of about an inch in diameter was felt.

On April 25th, the patient being placed under ether, Mr. Harrison broke up the stone, which was phosphatic, and evacuated the débris after the manner practiced by Professor Bigelow. The symptoms were at once relieved, and the cystitis from which the patient had so long suffered gradually abated under treatment.

Though the calculus was most completely broken up, there were no signs of hæmorrhage, either during the time of operation or afterwards. He left the infirmary on May 15, 1879, passing urine normally, and free from all signs of calculus. Whether, after such a history as that mentioned, he will continue free from further calculous formations remains to be seen.

After so extended an experience of stone and its treatment as this patient had undergone, it is not only interesting but proper to record his observation "that the new plan was the easiest way he had had of getting rid of a stone."

In commenting upon this case, Mr. Harrison said that it was another illustration in his own experience of the great value of litholapaxy in suitable cases. The object of this operation was to do away entirely with those ill effects which are produced by the retention and passing with the urine of broken pieces of calculi, which by their angles inflict injury on the mucous membrane of the urinary passages with which they come in contact.

A gradually-increasing experience in rapid lithotrity, with evacuation of the fragments, only corroborated the views advanced by Professor Bigelow, and which he (Mr. Harrison) had seen practiced with so much success by the originator during his stay in Boston last year.

[The above cases are reprinted from the *Lancet*, October 25, 1879.

DIRECTORY FOR NURSES.

MEDICAL LIBRARY BUILDING,
19 BOYLSTON PLACE, BOSTON.

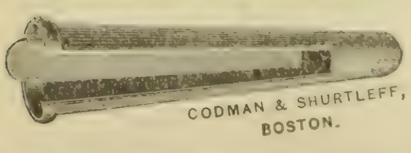
ON and after November 24th any one requiring a nurse, whether male or female, for cases of illness can obtain one, with full information as to character, qualifications, charges, etc., at the above address. The directory will be kept informed as to any change of address and engagements, present and future, of nurses registered there, and applications from the country by letter or telegram will receive prompt attention.

The directory will be open day and night. A charge of $1.00 from eight A. M. to eight P. M., $2.00 from eight P. M. to eight A. M., will be made to any person securing a nurse.

Mrs. M. R. Towne, Miss Mary Anne Wales, Miss Anna P. Dixwell, Dr. F. C. Shattuck, Dr. C. P. Putnam, Committee.

ANOTHER SPECULUM ANI.

THIS speculum, made of brass and plated with nickel, may be described as a hollow cone four and a half inches long, its apex consisting of a hemisphere with a radius of one quarter of an inch, and its base showing an aperture one inch in diameter. Running lengthwise upon one side of the instrument is a slot three and a half inches long, one half an inch in width at the point where it breaks the circumference of the base, and one quarter of an inch wide where it terminates, one inch from the apex. The edges and closed extremity of this slot are finished in such form that no pain is likely to be produced by any movement of the speculum within the anus.



Inside the cone, and fixed opposite the slot at an angle of between four and five degrees with the axis of the instrument, is a narrow glass mirror, in which may be seen, *through the slot*, the image of anything — a fissure, for instance — which it is desirable to expose for inspection. The mirror is firmly secured by a spring, and is so arranged that it can be easily removed and replaced. Experience has proved that the new speculum may be introduced, rotated, and withdrawn without inconvenience or suffering. Its conical shape makes it the substitute for a series of specula of different sizes. The use of the mirror is advantageous, directly by improving the illumination, and indirectly by allowing the observer so to place himself that his own person shall not intercept any ray of light that would naturally enter the instrument. During the examination the position of the surgeon may be easy and unrestrained, and the reflected object is presented to his eye with little obliquity.

Before using the instrument it is well to push through the anus, and leave to be expelled with the next stool, a bit of absorbent cotton. A. HOSMER.

WATERTOWN, MASS., *October*, 1879.

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THE PEA RIDGE PRACTITIONER AGAIN.

MR. EDITOR, — I beg you will allow me to present my compliments to the author of the capital satire entitled The Experiences of a Successful Practitioner, which appeared in your issue of October 9, 1879.[1] It might have been entitled The Art of Crushing a Young Doctor in Accordance with the Code of Ethics. It reminds me of a remark once made to me by a captain in the Cunard service. He said he could easily "run his ship ashore by act of Parliament." It is the old story over again. Even Holy Writ requires to be interpreted ingeniously. EDITOR EMERITUS.

PAU, FRANCE, *October* 25, 1879.

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DISSOLUTION OF GALL-STONES.

MR. EDITOR, — A recent number of the JOURNAL[2] contains a communication entitled A Medical Reclamation from the Domain of Surgery. In this article the writer very confidently proclaims the virtues of certain drugs as unfailing solvents of gall-stones, whether contained in the gall-bladder or in the biliary ducts. So certain and rapid, according to his testimony, is their action that cholecystotomy is henceforth absolutely without excuse.

The details of one of his most successful cases are given. The patient, a female, had an abdominal tumor, which, we are told, was an enormously distended gall-bladder, filled with gall-stones. On the strength of this diagnosis she "was ordered four six-ounce bottles of the succinate of iron, a teaspoonful of which she was directed to take half an hour after every meal." Such having been the medication prescribed, the report goes on to say that "on arriving at New York she got Squibb's chloroform, and took a teaspoonful of it in syrup and water every six hours for six days, at the end of which time the tumor over her liver had entirely disappeared, and could no longer be felt."

This case appears to be the same as the one alluded to by Dr. Austin Flint in the following passage:[3] "Dr. T. H. Buckler has proposed the use of chloroform in view of the solvency of cholesterine in this liquid. He has reported a case in which an indurated tumor, felt through the walls of the abdomen, directly over the inferior margin of the liver, disappeared in five days under the use of chloroform given in teaspoonful doses after each meal. It was concluded that the tumor was the gall-bladder distended with calculi, *but there is room for doubt as to the correctness of this diagnosis.*[4] It seems hardly probable that any remedies can be introduced into the composition of the bile largely enough to dissolve the cholesterin of which mainly biliary calculi are composed."

Murchison, whose authority on this subject is second to none, states that "although both chloroform and ether will dissolve cholesterin, which is the main constituent of gall-stones, out of the body, neither can reach the gall-bladder or bile ducts in a sufficiently concentrated form to accomplish this object during life, and the good effects which were thought to follow their use must be ascribed to their antispasmodic properties, and to the relief which they afford to flatulence."[1]

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[1] For the complete article referred to, see New York Medical Record, October, 1879.

[2] The JOURNAL, October 23, 1879, page 583.

[3] The Principles and Practice of Medicine, by Austin Flint, Philadelphia, 1873, page 459.

[4] The italics are added.

The writer of this article, in which the use of solvents is so enthusiastically advocated, commenting on his experience, remarks incidentally that "the science of general medicine, properly administered, and taking into account the frailties of human nature, is as certain as divinity, more so than law." Now, considering the uncertainties which seem to beset the theory and practice of medicine in general, and which undoubtedly attend most conspicuously the solvent treatment of gall-stones in particular, will not this statement seem a gratuitous libel upon both *divinity* and *law?* Such disparaging comparisons are not unlikely to make the ministers and the lawyers rise indignantly in a body to vindicate the threatened prestige of their respective branches of knowledge. ⁂

REPORTED MORTALITY FOR THE WEEK ENDING NOVEMBER 8, 1879.

Cities.	Population estimated for July, 1879.	Reported Deaths in each.	Deaths under Five Years.	Percentage of total Deaths from				
				The Principal "Zymotic" Diseases.	Diphtheria and Croup.	Lung Diseases.	Scarlet Fever.	Diarrhœal Diseases.
New York	1,085,000	492	185	16.06	7.93	17.07	1.42	1.42
Philadelphia	901,380	237	69	11.81	7.60	6.33	.84	—
Brooklyn	564,400	221	100	25.79	21.27	21.27	—	2.26
Chicago	—	147	73	42.86	24.49	10.88	8.16	4.08
St. Louis	—	113	37	16.81	3.54	6.19	1.77	5.31
Baltimore	393,796	151	54	29.14	16.56	3.98	5.96	—
Boston	360,000	140	55	28.57	15.00	13.57	2.14	5.00
Cincinnati	280,000	84	31	13.10	7.14	7.14	4.76	1.19
New Orleans	210,000	113	—	15.93	4.42	5.31	—	3.54
District of Columbia	170,000	82	33	15.85	6.10	10.98	1.22	4.88
Cleveland	160,000	47	30	57.45	27.66	4.26	19.15	2.13
Pittsburgh	—	51	—	45.10	29.41	3.92	3.92	1.96
Milwaukee	127,000	32	12	18.75	9.38	9.38	—	3.13
Providence	101,500	43	15	34.90	9.30	2.33	20.93	2.33
New Haven	60,000	18	6	16.67	11.11	5.56	—	5.56
Charleston	57,000	27	5	22.22	—	7.41	—	3.71
Nashville	27,000	11	4	9.09	—	—	—	9.09
Lowell	53,300	22	7	4.55	4.55	18.65	—	—
Worcester	52,500	9	3	11.11	—	11.11	—	11.11
Cambridge	50,000	11	6	54.55	45.45	—	—	9.09
Fall River	48,500	23	17	43.48	—	13.04	34.78	8.69
Lawrence	38,200	17	11	29.41	17.65	17.65	—	11.77
Lynn	34,000	14	1	21.43	14.29	21.43	—	—
Springfield	31,500	2	—	—	—	—	—	—
New Bedford	27,000	13	2	23.08	15.38	—	7.69	—
Salem	26,400	10	4	30.00	20.00	—	—	—
Somerville	23,350	3	3	66.67	—	—	66.67	—
Chelsea	20,800	7	3	28.57	28.57	—	—	—
Taunton	20,200	4	—	—	—	25.00	—	—
Holyoke	18,200	10	2	20.00	—	—	20.00	—
Gloucester	17,100	5	2	20.00	20.00	—	—	—
Newton	17,100	—	—	—	—	—	—	—
Haverhill	15,300	5	—	—	—	—	—	—
Newburyport	13,500	2	1	—	—	—	—	—
Pittsfield	12,650	—	—	—	—	—	—	—
Fitchburg	12,500	5	1	—	—	20.00	—	—
Milford	9,800	3	—	—	—	—	—	—

Two thousand one hundred and seventy-four deaths were reported: principal "zymotic" diseases (small-pox, measles, diphtheria and croup, diarrhœal diseases, whooping-cough, erysipelas, and fevers) 492, consumption 334, diphtheria and croup 261, lung diseases 241, scarlet fever 73, diarrhœal diseases 53, typhoid fever 36, malarial fevers 32, whooping-cough 15, measles nine, cerebro-spinal meningitis seven, erysipelas six, small-pox none. From

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[1] Diseases of the Liver, by Charles Murchison, M. D., New York, 1877, page 362.

typhoid fever, Boston seven, Philadelphia six, Baltimore five, Chicago and Pittsburgh four, St. Louis and District of Columbia two, New York, Brooklyn, Cleveland, Milwaukee, Charleston, and Lynn one. From *malarial fevers*, New York and New Orleans eight, St. Louis four, Brooklyn, Baltimore, and Charleston three, Chicago, District of Columbia, and Cleveland one. From *whooping-cough*, New York seven, Philadelphia, Brooklyn, Baltimore, Boston, New Orleans, Pittsburgh, Providence, and Salem one. From *measles*, New York seven, Chicago two. From *cerebro-spinal meningitis*, Chicago two, New York, Boston, Cleveland, Milwaukee, and Charleston one. From *erysipelas*, New York two, Philadelphia, St. Louis, Baltimore, and Cleveland one. Diphtheria is still increasing; measles and scarlet fever were more fatal.

The meteorological record for the week in Boston was as follows: —

Date.	Barometer.	Thermometer.			Relative Humidity.				Direction of Wind.			Velocity of Wind.			State of Weather.[1]			Rainfall.	
	Mean.	Mean.	Maximum.	Minimum.	7 A. M.	2 P. M.	9 P. M.	Mean.	7 A. M.	2 P. M.	9 P. M.	7 A. M.	2 P. M.	9 P. M.	7 A. M.	2 P. M.	9 P. M.	Duration.	Amount in Inches.
Nov. 2	30.201	36	46	26	66	36	63	55	W	0	S	7	0	4	F	F	O	—	—
" 3	29.820	33	43	28	100	100	100	100	E	SE	NW	12	6	19	S	S	S	—	.42
" 4	30.191	27	33	21	100	59	63	74	W	NW	NW	8	16	15	C	C	C	—	—
" 5	30.471	27	35	17	70	43	76	63	NW	W	W	10	4	2	C	C	C	—	—
" 6	30.334	30	33	21	100	89	89	93	NW	W	NW	2	3	4	S	S	O	—	.13
" 7	30.375	35	40	30	100	73	90	88	NW	N	W	7	2	4	S	O	C	—	.08
" 8	30.340	49	58	31	100	47	79	75	S	SW	SW	4	16	8	F	F	F	—	—
Week.	30.247	34	41	25				77		NW		1463 miles						40.2	.63

[1] O., cloudy; C., clear; F., fair; G., fog; H., hazy; S., snow; R., rain; T., threatening.

For the week ending October 18th, in 149 German cities and towns, with an estimated population of 7,518,362, the death-rate was 23.8, same as in the previous week. Three thousand four hundred and forty-two deaths were reported: diarrhœal diseases 412, consumption 404, acute diseases of the respiratory organs 246, diphtheria and croup 130, scarlet fever 71, typhoid fever 63, whooping-cough 60, measles 26, puerperal fever 25, small-pox one. The death-rates ranged from 9.4 to 38.

For the week ending October 25th, in the 20 English cities, with an estimated population of 7,383,999, the death-rate was 22.1 against 20.9 of the previous week. Three thousand one hundred and twenty-eight deaths were reported: scarlet fever 166, diarrhœa 93, measles 74, whooping-cough 61, fever 59, diphtheria 15, small-pox six (London five, Birmingham one). The death-rates ranged from 14.6 to 26.4. Diarrhœa, typhoid fever, and small-pox continue to prevail in the Belgian cities; diarrhœa in the larger Swiss towns.

OFFICIAL LIST OF CHANGES OF STATIONS AND DUTIES OF OFFICERS OF THE MEDICAL DEPARTMENT U. S. ARMY, FROM NOVEMBER 8, 1879, TO NOVEMBER 14, 1879.

King, William S., lieutenant-colonel and surgeon. The extension of his sick leave of absence granted him March 6, 1879, from A. G. O., is further extended six months on account of sickness. S. O. 254, A. G. O., November 8, 1879.

Tremaine, W. S., captain and assistant surgeon. The leave of absence on surgeon's certificate of disability granted him in S. O. 214, October 27, 1879, from head-quarters Department of the Missouri, is extended two months on surgeon's certificate of disability. S. O. 255. A. G. O. November 11, 1879.

Elbrey, F. W., captain and assistant surgeon. Relieved from duty in Department of the South and to report in person to the commanding general Department of the Missouri for assignment to duty. S. O. 254. C. S., A. G. O.

Byrne, C. B., captain and assistant surgeon. When relieved by Assistant Surgeon Comegys to comply with S. O. 235 C. S., from A. G. O. S. O. 231, C. S., Department of Texas.

Havard, V., first lieutenant and assistant surgeon. Granted leave of absence for one month from 25th instant, with permission to apply for one month's extension, provided he furnishes satisfactory medical attendance to the command at Fort Johnston, N. C., at his own expense. S. O. 168, Department of the South, November 10, 1879.

Comegys, E. T., first lieutenant and assistant surgeon. Assigned, temporarily, to duty as post surgeon at Fort Duncan, Texas. S. O. 231, Department of Texas, November 3, 1879.

Porter, J. Y., first lieutenant and assistant surgeon. Granted leave of absence for five months. S. O. 254, C. S., A. G. O.

Richard, Charles, first lieutenant and assistant surgeon. Relieved from duty at Fort Buford, D. T., and to report to commanding officer Fort Snelling, Minn., for duty at that post. S. O. 124, Department of Dakota, November 2, 1879.

LIST OF CHANGES IN THE MEDICAL CORPS OF THE NAVY DURING THE WEEK ENDING NOVEMBER 14, 1879.

Medical-Director A. L. Gihon and Medical Inspector B. T. Gibbs ordered as delegates to represent the Medical Corps of the Navy at a meeting of the National Public Health Association at Nashville, Tenn.

We have received specimen copies of Dr. C. Henri Leonard's Physician's Day-Book and Reference and Dose Book. Both are intended for the pocket, both are ingenious and useful. The former is a case-book and cash record. The latter includes not only doses, but scores of little matters upon which physicians constantly require information.

Books and Pamphlets Received. — American Health Primers. The Throat and the Voice. By J. Solis Cohen, M. D. Philadelphia: Lindsay and Blakiston. 1879. (From A. Williams & Co.)

The Physician's Visiting List for 1880. Twenty-ninth year of its publication. Philadelphia: Lindsay and Blakiston. (A. Williams & Co.)

The Thirty-Sixth Annual Report of the New York Association for Improving the Condition of the Poor, for the Year 1879.

A Glance at Insanity and the Management of the Insane in the American States. By Pliny Earle, M. D. Boston. 1879.

Walsh's Physician's Handy Ledger. A Companion to Walsh's Physician's Combined Call-Book and Tablet. Published by Ralph Walsh, M. D., 326 C Street, Northwest, Washington, D. C.

Walsh's Physician's Combined Call-Book and Tablet.

On Cysticercus Cellulosæ. By C. S. Turnbull, M. D., of Philadelphia. (Reprint.)

Transactions of the Massachusetts Medico-Legal Society. Vol. I. No. 2. 1879. Cambridge: Riverside Press.

A Treatise on the Theory and Practice of Medicine. By John Syer Bristowe, M. D. Lond. Second American Edition. Revised by the Author. With Notes and Additions by James H. Hutchinson, M. D. Philadelphia: Henry C. Lea. 1879. (A. Williams & Co.)

Holden's Manual of the Dissection of the Human Body. Edited by Luther Holden, President of the Royal College of Surgeons of England, and John Langton, F. R. C. S. Illustrated. Fourth Edition. Philadelphia: Lindsay and Blakiston. 1879. A. Williams & Co.

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EXPERIMENTS UPON THE STRENGTH OF ANTISEPTICS.

BY ARTHUR T. CABOT, M. D.

SURGICAL antiseptic preparations may be divided into two classes: (1) those which are meant to be actively destructive to the lower organisms which cause putrefaction, and (2) those which oppose the approach of these organisms to wounded parts already aseptic. Among the first class are to be counted the solutions for washing parts to be operated on, for cleansing wounds already exposed to the air, and for furnishing an antiseptic shower (spray) over wounds during operation and exposure. The second class comprises the gauze and cotton and the various oils and salves used to protect wounds from the action of the septic organisms in the air.

It is with the antiseptics of the first class, with the actively destructive antiseptics, that this paper has to do. Preparations of this class to be effective must act quickly. Whether they be used to destroy the putrefactive germs in a wound long exposed to the air, or those just settling out of the air upon a fresh wound, they have but a short time during which they can act with their full vigor, being in either case rapidly diluted and neutralized by the blood and exudations from the wounded surface.

The power of an antiseptic solution is usually tested by immersing in it some putrescible substance,[1] or by adding it to a sugar solution into which a ferment is also introduced,[2] and then noticing its effect in hindering putrefaction and fermentation. These tests are defective in that they give us no idea of the rapidity of action of the antiseptic. Further, the more volatile antiseptics, which, on account perhaps of their volatility, are rapid in their action, after destroying the germs existing in the fluids would escape, leaving the solution exposed to the germs of the air, while those of less volatility and slower action would offer a much longer protection and might well be used in the protective preparations of the second class. Another not uncommon test for an antiseptic is the observation under a microscope of its power of arresting the movements of the bacteria in a foul solution.[1] We have, however, no proof that the activity of the bacteria is a measure of their power of exciting putrefaction, and many quiet forms are capable of inducing fermentative changes. In endeavoring to apply this test, too, I have found the active movements of the bacteria checked by solutions so dilute that little or no destructive antiseptic action could be claimed for them.

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[1] Billroth, Untersuchungen ueber Coccobacteria septica, page 205.

[2] Dr. L. Lewin, Das Thymol, ein Antisepticum und Antifermentativum, Virchow's Archiv, B. 56, S. 164.

Finally, the clinical trial of an antiseptic, though it will lead finally to a tolerably correct appreciation of its worth, is a slow and uncertain means of judging, involving as it does so many varying conditions.

The method which has been used in the following tests avoids, I think, the objections which may be made to all of these. It is as follows: —

Ten cc. of the antiseptic to be tested are added to three cc. of a foul solution. After a certain measured time, two drops of the resulting mixture are transferred to an aseptic solution, which is carefully protected from the air, put aside, and watched for the first evidences of putrefaction. Suppose the putrefactive elements, be they bacteria or chemical ferments, have preserved their vitality during this time of contact with the antiseptic; they are released from further antiseptic action when these two drops mix with, and are diluted in, the aseptic solution, and are then free to set up putrefactive changes in it. If, therefore, putrefaction appears in the test solution, we know that the antiseptic had not acted long enough upon the germs of putrefaction to destroy them. We repeat the experiment with a longer time of exposure, and so proceed till we reach the time that proves sufficient for the destruction of the putrefactive elements, and we then find that the aseptic solution continues clear and sweet. The sign of putrefaction which was relied upon in these experiments was the appearance of cloudiness, due to the presence of micro-organisms, and their presence or absence was always verified by the microscope.

I have prepared a table of these "personal equations" of a few of the better known antiseptics. Before giving it, however, I will detail briefly the minutiæ of the tests of which I have described the general features and objects.

The aseptic solution is prepared by boiling several small pieces of meat with a large quantity of water in a glass flask purified by exposure to the flame of an alcohol lamp. This flask is stopped with a rubber cork perforated by two glass tubes for convenience of decanting. The tubes are bent downwards, and the ends are carefully protected with carbolized gauze. The cork and tubes are carefully cleansed beforehand with carbolic acid. The resulting solution, if made with lean meat, settles clear; if the meat is fat, the solution is rendered cloudy by fine oil drops, and must be prepared again.

This solution when used is decanted into wine-glasses previously cleaned by exposure to alcohol flame, and these are then covered with inverted watch-glasses, and the whole by bell-glasses, all of which have likewise been exposed to high heat.

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[1] Billroth, loc. cit., page 210.

The solution thus protected will keep for an indefinite length of time without a sign of putrefaction.

It is into glasses thus prepared that the minute quantities of the mixed antiseptic and foul solution are transferred, and in them the minutest changes in the fluid can be easily observed.

To anticipate some of the objections which may be made as to the accuracy of these experiments, I would say that I expected to meet with great inconsistencies in my results, due to the accidental entry of germs into my test glasses. Contrary, however, to this expectation, my results were very uniform and constant, although the experiments were distributed over a space of two years. In each case the result obtained was verified by several additional experiments.

Of the antiseptics examined the rapidity of action ("personal equation") was determined as follows: —

Acidi carbolici	1–20 [1]	5 seconds.
Liquor sodæ chlorinatæ	1–10	15.30 seconds.
Acidi salicylici	1–240	3 minutes.
Thymol	1–500	3 minutes.
Thymol	1–1000	4 minutes.
Acidi carbolici	1–40	4 minutes.
Potas. permang.	1–960	over 6 minutes.
Zinci chloridi	1–12	over 6 minutes.
Alum acetatis [2]		over 6 minutes.

It will be seen by this table that carbolic acid in the strength of one part to twenty of water is almost instantaneous in its action. At least five seconds are required for the thorough mixing of the acid with the foul solution, and after this the resulting mixture is incapable of exciting putrefaction.

Next to this in efficacy comes the solution of chlorinated soda, made by adding one part of the liquor sodæ chlorinatæ to ten parts of water. This I found remarkably certain in its action.

Of the action of salicylic acid I would say that it was extremely uncertain. Some specimens of the acid seemed wholly destitute of antiseptic power. The result recorded above was obtained with the best of a number of samples procured from different reliable druggists.

The solution of this strength could only be made by the aid of a small quantity of alcohol. Salicylic acid is said to be soluble in three hundred parts of water, but many trials showed that this solution was impossible without the aid of heat, and that part, at least, of the acid crystallized out in two or three days.

Although thymol in solution of one part to one thousand of water is equally effective with carbolic acid one to forty, yet the solution of double this strength, made with the addition of a little glycerine and alcohol, falls far short of the stronger preparation of the rival drug.

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[1] The numbers in this table indicate the parts of water to one part of the antiseptic.

[2] Preparation recommended by Mr. Paul Burns in London Medical Record, April 15, 1879, page 168.

Permanganate of potash was noticed to effect the destruction of the minuter organisms in a comparatively short time (three to four minutes), but some larger forms of penicillium (among others penicillium glaucum) resisted its action for a much longer time.

Lastly, I would notice the inefficient action of chloride of zinc, which many distinguished surgeons[1] have preferred to any other preparation for cleansing deep wounds long exposed to the air. I can only surmise that the action on which its reputation is based is upon the tissues themselves rather than upon the organisms, and that it closes the channels of absorption against the entry of septic poisons much as a light cauterization with nitrate of silver does.

I am led to conclude, then, that of the preparations examined the five per cent. solution of carbolic acid is the most proper to use when a rapid action is desired, notably in the shower or spray thrown over a wound during operation and dressing.

When carbolic poisoning is feared or already present, the solution of chlorinated soda is by far the most powerful substitute that can be used. The rapidity of action of this latter antiseptic renders it well adapted for use as a gargle in diphtheria, or as a mouth wash when a foul discharge is present.

When a strongly antiseptic action is not required, as in washing a wound successfully aseptic, or when long contact of the antiseptic with the wound is probable, as in washing out a cavity with a continued current, some of the milder antiseptics may be safe and agreeable substitutes.

Some preparations clinically ranking as antiseptics owe their reputation to other powers than that of destroying septic material.

THE TREATMENT OF FRACTURE OF THE LOWER END OF THE RADIUS.[2]

BY R. J. LEVIS, M. D.,

Surgeon to the Pennsylvania Hospital and to the Jefferson College Hospital.

THE primary line of separation in the characteristic fracture of the carpal end of the radius is, with little tendency to deviation, *transverse* in its direction. Associated and secondary lines of fracture are generally those of comminution of the lower fragment, and are caused by the angular edge of compact tissue on the posterior aspect of the superior fragment being driven into the lower fragment and splitting it, usually in directions towards its articular surface. The displacement of the lower fragment is towards the dorsal aspect of the fore-arm, its articular surface being inclined so as to be abnormally presented backwards and upwards.

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[1] Lister, Volkmann, and others.

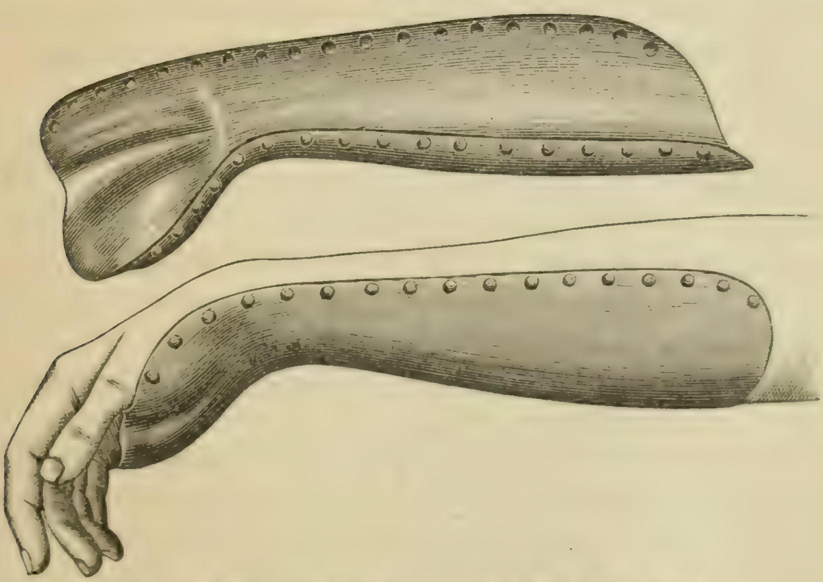
[2] Abstract of a paper read before the Pennsylvania State Medical Society.

The mechanism of the fracture is simple. By a fall the weight of the body is suddenly thrown upon the hand, which undergoes extreme extension. If the force be sufficiently great, a fracture of the radius ensues, being caused by an act of leverage, or *transverse strain.* This direction of force has also been termed *cross-breaking strain.* Displacement of the fragments may not take place at all, or it may exist to the extent of complete separation of the surfaces from each other, the deformity varying with the force applied and the retaining influence of surrounding structures.

In reviewing the principles of treatment, the first essential is the *complete reduction of the displacement.* This is necessarily directed to the lower fragment. The reduction can usually be effected under the influence of ether by *strong extension applied to the hand, associated with forced flexion of the wrist.* The return of the deformity may be prevented by maintaining partial flexion of the wrist by a suitable splint, a pad being placed upon the dorsal surface of the fragment to retain it in place. This will accomplish the result, except where vertical splitting or extensive comminution of the fragment is present.

In order to fulfill the indications for treatment splints of various kinds have been devised, but some of those in general use ignore the anatomical relations of the part, and hence often fail in obtaining a satisfactory result in the treatment of the fracture. In applying a splint it is essential that proper allowance should be made for the curvature of the lower portion of the radius, the concavity of which is on the anterior or palmar aspect of the bone. In the splint which I have

Fig. 1.



Splint for fracture of the lower end of the radius.

devised and herewith present to the society, it will be noticed that this curvature is regarded, insuring the fitting of the dressing to the forearm. The fixing of the thenar and hypothenar eminences of the hand in their moulded beds maintains the splint immovably in its correct position with reference to the radial curve. The splint is made of copper, which is readily bent to suit the peculiarities of size and form in individual cases. A series of elevations or semi-punctures is placed along the edge, so as to keep the bandage from slipping. The surface of the metal is tinned, so as to prevent chemical change or rust.

As a lining to the splint when applied, a piece of woven lint or of cotton or woollen flannel is, as a rule, all that is necessary. No dorsal splint is needed, but the small compress already mentioned is placed on the lower fragment to prevent it slipping upwards and backwards. The splint is retained in place by an ordinary two and a half to three inch roller bandage.

This splint, being easily adapted to peculiarities of shape of the forearm, has the positive merit of being applicable to all cases of fracture of the lower end of the radius, and also to many other injuries in the neighborhood of the wrist-joint. It is almost indestructible, and as now supplied is quite inexpensive. It can be obtained by addressing any of the leading surgical instrument makers.

CARE OF THE INSANE IN MASSACHUSETTS.

BY WALTER CHANNING, M. D.

In an essay read in April last before the Suffolk District Medical Society, of which this paper is an abstract, I showed by statistics that the time was rapidly approaching when increased hospital accommodation would be needed for the insane of Massachusetts. Brevity prevents a publication of these statistics, but the history of our hospitals since the essay was read has amply verified the statements then made. It may now be safely asserted that within a short time our insane hospitals will be as full as in justice to the patients they should be, and further provision will be needed. The present time is none too soon to consider how this may be furnished. The most satisfactory results may, in my opinion, be arrived at by taking the following steps: (1) building a general hospital for the insane; (2) making some of the existing hospitals into institutions more especially for the chronic insane; (3) building a private or middle-class hospital; (4) building a criminal lunatic asylum and (5) building an inebriate institution. Each one of these suggestions may be considered separately.

(1.) The first hospital built should be for Boston patients chiefly, and would probably prosper best under state supervision, thus being guided by a wider policy and less liable to be managed politically. It has been urged that Boston should care for her own insane, but judging by the management of the insane in New York, Brooklyn, and Philadelphia there is little encouragement in this direction. The hospital should be not more than ten miles out of Boston, and five would be better, not only because it would receive Boston patients chiefly, but also because, as shown by Mr. F. B. Sanborn,[1] the population in the northeastern or Boston district of Massachusetts is nearly three times as great as in either the western, middle, or southeastern districts. It should be situated on a main line of railroad, and as accessible as possible, the cost of reaching it and the cost of transporting supplies to it being thereby much diminished. It should accommodate three hundred patients, and receive only recent cases. A most valuable addition would be a small, detached block, officially connected with it, on the Boston City Hospital grounds. To this branch cases could be sent for detention and examination, instead of going as now to the Tombs. Furthermore, it would serve a most valuable purpose as a place for clinical instruction. A somewhat similar plan has long been successfully carried out at La Charité at Berlin.

(2.) Making some of the present hospitals more especially institutions for the chronic insane. On the occupation of this new hospital the nearest existing hospital should be utilized for the chronic patients, receiving by preference the overflow from the new hospital, which would retain no patient over two years. The chronic hospital could receive a small number of recent cases from the immediate neighborhood, but to all intents and purposes it would be for chronic cases alone. Some of our hospitals could be enlarged to accommodate an increased number, but rather than do this it would be better to put up detached blocks. Many patients could be easily cared for in these blocks, and lead regular, comfortable, and happy lives, but little suggestive of the asylum ; yet they could be under hospital discipline, and so situated that any unusual mental or physical manifestation could be at once reported, and if necessary treated at the central hospital. All of our hospitals are already largely filled with chronic patients, and the change to chronic institutions could be made gradually and easily. Finally, a point would be reached where added buildings would be necessary, and patients would be received principally by transfer. This should be the rule, but, as I have before said, a small number of patients becoming suddenly and violently insane could be admitted as a matter of convenience.

If we assume, then, that our first new hospital is built at Lynn, Newton, Dedham, or some other town near Boston, recent cases will be sent to it, and Danvers, the nearest hospital, having been made into a chronic hospital, is relieved of this class. The latter receives transfers, as its numbers diminish, from South Boston and the other hospitals, and begins to put up cheap cottages. In time Danvers will take all cases of over two years' duration from the acute hospital, and thus there will be two hospitals in the northeastern part of the State, which though separated by distance will be practically one institution. As circumstances require, other hospitals can follow the same general plan, and eventually I have no doubt that several of our existing hospitals will receive the chronic class alone.

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[1] Tenth Annual Report of the Board of State Charities.

As time goes on and the number of the chronic insane in our hospitals gradually increases, the question of hospital provision will apply chiefly to this class. The Willard Asylum for the chronic insane in New York has been so long established that it may be regarded as a success. This institution is so remote from most New York hospitals that it is reached with some difficulty and at considerable expense ; but in spite of these great obstacles its wards are filled, and it is constantly adding to its buildings. Massachusetts is so much smaller than New York that transfers from its various hospitals can be comparatively easily and conveniently made.

(3.) Building a private or middle-class hospital. A further means of relief for our hospitals will be the exclusion of private patients. The law allows the reception of this class, but only until such time as the space now occupied by them is required for paupers. Of this class of private patients there were, October 1, 1879, a total of two hundred and seventy-six, the largest number being at Worcester, the smallest at Danvers. The principal argument in favor of the retention of this class in our state hospitals is that they increase the average amount received for patients, thereby reducing the hospital expenses to the State. It is economy to treat them, but otherwise both the hospital officials and the private patients would be better off if they were not received. These patients are, it might be said, outsiders or interlopers, seeking treatment at institutions intended for paupers, because too poor to pay the large prices of private asylums. A hospital should be built especially for this class of paying patients. Dr. Robertson[1] wrote of them sixteen years ago: "I can hardly spare time to tell you of the practical difficulties, not to speak of the personal worry, attending the mixing in one house and under one system of treatment of pauper and private lunatics. . . . . For the wealthy all conveniences are open, whether private lodgings with medical men or their own houses, and it is the fault of their friends more than their circumstances if all is not done for them which can be done. For the poor or laboring classes the county lunatic asylum, the hospitals of Bethlem and St. Luke's, afford great and suitable accommodations. But what is there for persons as refined as their richer neighbors, and of education often superior? They cannot afford the former alternative, and are too often compelled to accept the latter, and this at a cost which none but those who witness their sufferings can appreciate."[1] In reference to the same subject Dr. Maudsley[2] has said: "It is not well to place any one who has become insane in different social conditions from those of his former life. . . . . When, therefore, the friends of the insane cannot send them to a private asylum, and these cannot be admitted into the county asylum and are not fit to be at large, the public must do one of two things, — either subscribe money enough to keep such cases in a private asylum, or build a suitable public asylum for them. Of the two expedients, it will evidently be better to adopt the last." Not only Lord Shaftesbury and Drs. Robertson and Maudsley have so expressed themselves, but many other English asylum superintendents. In 1863 Sussex County Asylum at Hayward's Heath had arrived at a crisis, to which we shall soon come, of being so overrun with paupers that no room was left for private patients. Dr. Robertson, the then superintendent, was impelled to speak and write as he did partly, no doubt, from the urgency of the case, but also largely because he felt that the person of refinement and education should not, as a matter of abstract justice, be thrown with the pauper.

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[1] Journal Mental Disease, January, 1863.

Though the need of a private asylum for the moderately well-off class is not so urgent in this country as in England, there is still room for it, and if begun at once it would be ready none too soon to accommodate the two hundred and seventy-six private patients in our state hospitals when they are discharged to make room for paupers. Such a hospital could be built by the State or by private endowment. If the State were to build it, it could do so by issuing bonds or borrowing money. It would undoubtedly be self-supporting, and judging by the experience of some well-managed English asylums would eventually pay for itself. The erection of such a building would be a noble charity, and even as a speculative enterprise would be sure to succeed.

The private hospital can be more elaborately finished than the ordinary hospital, and in its furniture, appointments, and general details can provide many of the little luxuries which, unknown to the average pauper, are of the greatest importance to the more refined and sensitive person from a higher social scale.[3]

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[1] Lord Shaftesbury, quoted by Dr. Robertson.

[2] Journal Mental Disease, October, 1862.

[3] The requirements of this class of persons will, no doubt, be partially met by the new hospital which is to be built by the McLean Asylum authorities at Waverly. I understand that this new institution will accommodate two hundred and fifty patients, and will therefore be able to receive a much larger number than at present, and without doubt at a lower rate of board than it can now afford with justice to itself at Somerville.

(4.) Our hospitals should be relieved of insane criminals. All hospital superintendents, both in Europe and in this country, speak strongly against the retention of insane criminals, especially convicts, in ordinary hospitals. They exert a bad influence on other patients, and are both difficult and dangerous to manage. That they must be treated separately is universally agreed, but how best to do it in small States is a puzzling question. It has been suggested that several small States should club together and build criminal asylums. Either this or some other measure will undoubtedly be adopted. How often the two classes are associated together in one ward I cannot say, but the principle of sending convicts to ordinary hospitals renders it possible.

(5.) Inebriates are an even more difficult class rightly to dispose of. Dr. Bucknill[1] says of them: "There are two distinct kinds of drunkards, — the habitual and insane drunkards, — who must be dealt with by different methods, ... the one form of drunkenness being a mere vice which can be reformed by moral methods. . . . . This kind of drunkenness is too wide-spread to be dealt with in asylums or brick-and-mortar institutions of any kind. . . . . The other kind of habitual drunkenness is a morbid condition, is in fact a form of insanity. . . . . That peculiarity of this malady which permits long remissions of the more marked symptoms renders the insane drunkard an inconvenient inmate of ordinary lunatic asylums, and therefore the proper method of dealing with such cases would be to establish public hospitals for insane drunkards, with salaried officers, under the control of boards of governors and the authority of the commissioners in lunacy."

Both the classes spoken of by Dr. Bucknill are sent to our lunatic hospitals. Often a person is arrested in the middle of a debauch and carried to the hospital. Here he quickly recovers from its immediate effects, and is left a sane man, comparatively speaking, among the insane, to be irritated and annoyed by those around him, and, in his turn, to exercise a pernicious influence, and to brood further over his false imprisonment in an institution for lunatics. The very fact that the inebriate, as a rule, has a greater power of perception and reasoning than the ordinary insane person renders a greater degree of moral control and discipline necessary.

We should have, therefore, a hospital for insane drunkards. This would relieve our other hospitals of a numerous class, and much simplify and diminish the responsibility of our superintendents.

Still another class, namely, epileptics, must still be provided for, but I think special provision can be a long time delayed. The number of this class is large in every hospital, and in New York city and in other places special hospitals are maintained for their treatment. In Massachusetts, however, it seems to me possible to treat epileptics in our general insane asylums. Separate wards may be given up to them, and in time perhaps a detached block.

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[1] Habitual Drunkenness and Insane Drunkards, preface, page xxi.

I have thus enumerated the buildings which in course of time will be required for our insane. The progress of events will undoubtedly determine when, but a consideration of the question at the present time will only cause a more careful and judicious course to be pursued in the future. Economy is the one word which must guide all future movements in erecting insane hospitals. This economy must be practiced in building. Unfortunately, this policy has not been followed in the erection of some of our recent hospitals, and all of them are now suffering from the reaction of past extravagance. This was shown last winter, when the legislature cut down the weekly amount to be allowed for state paupers in insane hospitals to three dollars. Whether this sum will be sufficient to support this class will be proved in later statistics.

It must not be forgotten that the cost of providing for the insane must always be excessive, for "it has been shown in England, under the supervision of the county and borough magistrates and the guardians of the poor, who administer the funds intrusted to them with the greatest economy, that the average cost of supporting the insane paupers for food, clothing, attendance, and management in the public hospitals is more than three times as great as supporting the sane paupers in the workhouses." In our own State it has been said to be about twice as much.

While our hospitals in this State compare favorably with those abroad in appointments and appliances for treatment and general comfort for the patients, it will not be denied that we are behindhand in original scientific investigations. That so much is accomplished with the present small and overworked staffs is evidence that under a somewhat different system most valuable results would be attained. In the ordinary routine of hospital life little time is found for reading or microscopical examination. The first step in the right direction would be the appointment of a skillful and highly educated pathologist, especially versed in brain histology, and a man who would bring the force, energy, and perseverance to his work now so characteristic of the Germans. Such a man should be employed by the State as pathologist to our lunatic hospitals, and paid a salary that will allow him to devote his entire time to the work. He could make as many autopsies in person as possible, and when not able to be present could have specimens sent him. Each hospital under his direction could start a pathological cabinet and collect microscopical preparations. By careful pathological investigations and exactly kept clinical histories the knowledge of insanity would make definite progress and establish the study of the subject on a scientific basis.

For the carrying out of these views, the importance of which cannot be well overestimated, we need more medical workers in the hospitals. This result can be most advantageously and economically arrived at by the appointment of internes, after the manner of general hospitals. The student would thus acquire not only a practical acquaintance with insanity which would be invaluable to him, but also a general knowledge of disease, the uses of drugs and their compounding, and other necessary information. In a hospital accommodating three hundred patients, beside a staff of superintendent and two assistant physicians, there could be four internes. The internes would attend to minor details, and under the direction of the pathologist spend much time at the microscope, but they would especially write up the medical records, keeping them with great care. The assistants would thus be able to occupy their time, now impossible, almost entirely with the patients, spending hours daily in talking with them and giving them that encouragement and cheering so much needed in almost all cases. When not so engaged, reading and the microscope and recreation would each claim a certain proportion of time.

RECENT PROGRESS IN PATHOLOGY AND PATHOLOGICAL ANATOMY.[1]

BY R. H. FITZ, M. D.

PATHOLOGICAL ANATOMY.

Fatty Heart from Section of the Vagi. — In a series of experiments on birds made by Eichhorst,[2] it was found that after the vagus nerves were cut death ensued without those inflammatory results occurring in the lungs which follow this operation when performed on dogs and rabbits. On the contrary, a distinct and far-advanced fatty degeneration of the cardiac muscle was observed. This was attributed to a disturbance of nutrition due to the section of trophic nerves in the vagi. A slight similar degeneration of the heart was also noticed when the pneumogastrics of dogs and rabbits were cut, and, when tracheotomy was first performed, the animals thus treated died of cardiac paralysis, without the occurrence of pneumonia. In reply to an objection that death results from starvation rather than from paralysis of the heart arising from fatty degeneration, Eichhorst claims that in starvation death takes place later than when due to vagotomy, and that the changes in the heart in the former instance are due to granular opacity, and not to a fatty degeneration of the fibres.

He also states that increased pulsations of the heart were not of importance in producing the fatty change. When atropine was given to the birds in such a way that a prolonged acceleration of the heart's pulsation took place for days, the beat being constantly more rapid than is the case after section of the vagi, not even a trace of fatty metamorphosis was found after death.

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[1] Concluded from page 734.

[2] Centralblatt für die medicinischen Wissenschaften, 1879, x. 161 and 181.

Pulmonary Atelectasis. — Lichtheim [1] publishes at some length an account of experiments made with reference to determining the method of origin of acquired atelectasis, and concludes that in those forms experimented upon by him, which comprise that due to closure of the bronchi and that caused by opening the pleural cavity, the atelectasis results from the absorption of the air in the lungs by means of the blood circulating in the pulmonary vessels. A complete absorption of the air can take place only by means of the elasticity of the pulmonary tissue, which both compels the lung to assume the position observed after opening the pleural cavity, and strives constantly to force the air wholly from the lung, thus aiming at a restoration of the fœtal condition of this organ.

In human pathology the circumscribed atelectases complicating the bronchitis of young children are considered as undoubted instances of atelectasis from absorption. All the extensive forms resulting from croup and whooping-cough are not regarded as coming under the same head, for competent observers have not always found the respective bronchi to be filled with secretion. The instances, however, where the tubes are plugged form the majority, and these are looked upon as unquestionably due to the absorption of air. Lichtheim would also claim that the atelectatic changes undergone by those portions of the lung lying beneath a pleuritic effusion are due to the absorption of air rather than to a compression of the affected portions by the effused fluid. The latter method may apply to the instances of very abundant effusions under extreme pressure, but in the vast majority of cases the atelectatic portions of the lung in pleurisy become so through the absorption of the air present in them. Those parts of the lung beneath the fluid are unable to follow the inspiratory dilatation of the thorax, and the contained air can no longer be renewed, and must therefore necessarily undergo absorption.

Secondary Changes in Pulmonary Phthisis. — Mindful of the fact that pulmonary alterations result from the section of the pneumogastric as well as of the superior and inferior laryngeal nerves, and that the nerves of an organ degenerate when its function ceases, Kostjurin [2] determined to examine the pneumogastric, phrenic, and laryngeal nerves in cases of phthisis. The examination of the laryngeal nerves not being completed, the alterations in the former nerves are alone stated.

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[1] Archiv für experimentelle Pathologie und Pharmakologie, 1878, x. 54.

[2] St. Petersburger medicinische Wochenschrift, 1879, xxiv.; Allgemeine medicinische Central-Zeitung, 1879, lxxvi. 965.

In the cervical portion of the pneumogastric nerve certain fibres were decidedly altered, the myeline being transformed into fragments varying in size and shape, such as may be seen in nerves after they have been cut. The myeline was wholly lacking in places. The axis-cylinders occasionally seemed to be slightly enlarged, and in many parts to be entirely absent, while ill-defined bundles of connective tissue replaced the nerves. The more extreme alterations of the pneumogastric nerve were observed in such lungs as had undergone the most extensive destruction. The phrenic nerves from the same patients were but slightly altered, although scanty round drops resembling fat were seen in the coagulated myeline.

The frequent occurrence of a girdling pain in the region of the insertion of the diaphragm led Kostjurin to look for evidence of disease in the corresponding ribs and cartilages. He found the periosteum and perichondrium decidedly thickened, and containing occasional patches of new-formed blood-vessels. In those parts of the cartilage into which this vascular growth had entered the hyaline appearance was absent and the intercellular substance fibrous. The cartilage cells of the affected regions were destroyed, and granular and lymphoid corpuscles were present. It seemed as if the cartilage cells underwent a fatty degeneration and were absorbed.

In addition to the evidences of periostitis, tubercles were seen in the marrow of the ribs in two cases. In three patients ascites was present, without striking changes in the liver, and an examination of the vessels in the great omentum showed a thickening and opacity of their endothelium and almost a complete obliteration of their canal, there being no red blood corpuscles in the arteries and capillaries.

In the cases of phthisis where there was no ascites the omental changes were not noticed, and nearly all the small arteries and capillaries contained a considerable number of red blood corpuscles, so that a dilatation of the normal canal was suggested.

Œsophageal Ulceration from Digestive Fluids. — Quincke [1] reports three cases of ulceration of the œsophagus which presented such anatomical appearances as to persuade him that the ulcers must have been caused by the corrosive action of the gastric juice, and consequently were to be regarded as analogous to the round ulcers of the stomach. The comparative rarity of such ulcers in the œsophagus is manifestly due to the exceptional and usually limited contact of the œsophagus with the gastric fluids. Bloody vomit and dejections, perforation and contractions, occur as in the ulcer of the stomach. It is possible that a simultaneous considerable ascites and obstinate vomiting may assist in the diagnosis.

Lymphangioma of the Stomach. — The occurrence of a tumor considered to be of this nature is reported by Dr. Engel-Reimers.[1] The patient died from repeated hæmorrhages due to a chronic ulcer of the stomach near the smaller curvature, this being thickened and contracted in consequence of abundant cicatricial tissue. On the anterior wall of the stomach, near the lesser curvature, there projected from the serous surface a rounded tumor, more than two inches in diameter, composed of a spongy tissue, from the spaces in which there escaped, on section, a milky fluid. The tumor was seated between the peritoneal and muscular coats.

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[1] Deutsches Archiv für klinische Medicin, 1879, xxiv. 72.

A transition from cavernous spaces to varicose lymph vessels in the serous coat was repeatedly seen on microscopic examination. The absence of any evidence of proliferation at the periphery of the tumor indicated that the latter was rather due to a dilatation of preëxisting lymphatics than to an actual new formation of them. Such a dilatation was considered as due to an obstruction of the larger lymph channels caused by the cicatricial contraction of the smaller curvature of the stomach.

Histological Classification of Fibrous Hepatitis. — The existence of the new formation of bile-ducts in connection with chronic interstitial hepatitis has been frequently observed, and has recently acquired special prominence in consequence of the publications of Charcot and Gombault and Hanot.

Their presence was held as of value in indicating the origin of the interstitial process in the liver from the bile-ducts rather than from the other constituents of Glisson's capsule. Brieger[2] calls attention to the various affections of the liver in which these new-formed ducts have been seen, as acute yellow atrophy, various forms of interstitial hepatitis, in nutmeg atrophy, and concludes that they do not suffice to determine a special form of cirrhosis. With reference to the importance of the distribution of the connective tissue and its relation to the individual lobules, he admits that in most of the chronic interstitial affections of the liver the connective tissue extends irregularly into the lobules, while in alcoholic cirrhosis and in a case of hypertrophic cirrhosis the tendency was rather to the formation of septa surrounding individual portions of the liver. At the same time the various livers presented so many striking differences that other elements must be sought for in their classification. The relation of the blood-vessels was particularly noticed, and although in the several livers examined there seemed to be a certain uniformity in the development of the process, yet the capillaries of the lobules were thought to play a prominent part in the formation of the connective tissue in an atrophic nutmeg liver, a second of biliary stagnation, and a third of cirrhosis from tubercular peritonitis.

[1] Deutsches Archiv für klinische Medicin, 1879, xxiii. 632.

[2] Virchow's Archiv, 1879, lxxv. 85.

Bright's Disease and Primary Atrophy of the Kidney. — The following conclusions, arrived at by Rosenstein, are taken [1] from the programme of the Sixth International Congress at Amsterdam, before which his paper was to be read: —

"First. The anatomical alterations of the kidneys which occur in the disease first clinically described by Bright are always both interstitial and parenchymatous.

"Second. There is neither an exclusively interstitial nor an exclusively parenchymatous nephritis; both portions of the kidney are affected whenever a diffuse inflammation of the kidney has occurred, as may be confirmed by experiment and clinical observation.

"Third. The final result of the diffuse inflammation is the white and the red granular kidney. Both serve as the anatomical basis of the atrophic kidney, and are distinguished from each other only by the fact that the parenchymatous affection predominates in the former, while in the latter the interstitial change is prominent. The two forms may be distinguished clinically as well as anatomically, that is, by the composition of the urine.

"Fourth. Clinical observation makes it probable that a stage of enlargement precedes the so-called primary atrophic kidney or the red granular kidney, and this possibility is not opposed by anatomical evidence.

"Fifth. Bright's clinical description applies mainly to the white granular kidney, and the progress of the disease resulting in this condition may be divided with certainty, both clinically and anatomically, into two stages."

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PROCEEDINGS OF THE BOSTON SOCIETY FOR MEDICAL IMPROVEMENT.

E. G. CUTLER, M. D., SECRETARY.

JANUARY 27, 1879. *Enlarged Prostate; Dilated and Hypertrophied Bladder.* — DR. LYMAN reported the case and showed the specimen. Mr. ——, a gentleman about sixty years of age, of an excessively nervous temperament, large frame, and decidedly prominent abdomen, first called attention quite incidentally during the winter of 1877–78 to an occasional slight annoyance in passing urine. He attached little importance to it, and nothing was done except to tell him that there was probably some slight prostatic enlargement, not unusual at his age.

On the 27th of March, 1878, Dr. Lyman was sent for, and informed that the gentleman was annoyed by passing too much water. His only complaint was that he had to rise two or three times during the night. On examination, the urine was found to be about sixty ounces in quantity in the twenty-four hours; it was very pale and clear, had a specific gravity of 1007, and contained no albumen. Thirst was an annoying symptom. He had neither headache nor nausea, no pain, and *no difficulty whatever in micturition.* At a later period, as the urine continued to increase in quantity and the thirst became more urgent, the secretion being pale, free from deposit, and of low specific gravity, Dr. Lyman considered it to be a case of diabetes insipidus. On the 10th of May the urine was analyzed by Professor Wood, when the specific gravity had become reduced to 1003, and a slight trace of albumen was found. Professor Wood said: "The trace of albumen may be due to an altered condition of the blood or to congestion of the kidney from overwork. Careful microscopic examination fails to reveal the presence of casts."

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[1] Wiener medizinische Presse, 1879, xxxiv. 1088.

On the 24th of May two other gentlemen saw the patient in consultation, but no difference of opinion as to the diagnosis was elicited. The only symptoms of which the patient complained were loss of strength and some irritability of the stomach. Three weeks later the patient went to the sea-shore, and was not seen again till November 6th, when he was found to be suffering severely from what were described as rheumatic pains in the right intercostals and the shoulder. When questioned as to his original difficulty, he spoke of it as of no immediate importance. He attributed his pain to a cold and overexhaustion. He had been out on business, and walked for several blocks, a part of the way up-hill. The following day, while examining the thorax, a decided abdominal prominence was accidentally discovered, which on exploration appeared to be a solid movable mass in the umbilical region. This gave rise to no marked inconvenience, and the patient's attention was first called to it by Dr. Lyman. There had never been any vesical pain or feeling of distention, no difficulty in micturition or tenesmus, and no inconvenience, excepting, as already mentioned, eight or ten months previously. The urine had retained the same character.

The patient now showed unmistakable prostration, and a few days later, on November 14th, took to his bed. A slight loss of sensation, which had been noticed for some days in the right hand, became more marked, and there was decided loss of power in the lower extremities, resulting in his falling upon the floor on attempting to get out of bed. He thought it to be a paralytic shock, and was much alarmed, but with a little encouragement was able to assist himself to some extent on being lifted to his bed. Late in the evening of November 15th he was comparatively comfortable, complaining only of his weakness. At midnight, without any warning to the nurse, he ceased to breathe. Dr. Lyman suspected that the tumor felt in the abdomen might be a malignant growth from the kidney, and possibly the explanation of the diabetes. The autopsy was performed by Dr. E. G. Cutler, and was necessarily partial. The bladder was distended with clear, limpid urine; two and one half large wash-bowls were drawn off. The wall of the bladder was greatly thickened. The two lateral lobes of the prostate were very much hypertrophied, and so pressed upon each other as completely to close the urethra. The ureters were both very much dilated, and readily admitted the index finger; this dilatation extended into the pelves and calices of the kidneys. On section, the kidneys were found to be very pale, some of the tubules of the cortex were cloudy, the organs were dense to the feel, and the capsules stripped readily. The kidneys were of normal size. A microscopic examination showed that the epithelium of the convoluted tubules was a little more cloudy than usual, while the straight tubules were healthy. No casts were found in the tubules, and the interstitial tissue was not increased. Dr. Lyman thought the patient had died of some brain lesion.

Dr. Minot said he had once drawn off five quarts and one pint of urine from a patient with enlarged prostate who had supposed he had already emptied his bladder.

Dr. C. D. Homans considered that absence of pain and uneasiness was no indication that the disease of the prostate had not lasted a very long time.

Purulent Inflammation of Middle Ear. — Dr. J. O. Green reported two cases of purulent inflammation of the tympanum to illustrate the importance of early operation where œdema behind the ear occurs as suggesting collection of pus in the mastoid cells: —

Case I. Mrs. X., widow, had a purulent inflammation of the left tympanum, with perforation of the middle tympanum, for four weeks, following the use of the nasal douche with salt water. The mastoid was slightly œdematous and tender for a few days only, she said; the operation of opening the mastoid cells was proposed, but refused. Two weeks later the operation was done under ether, and a small amount of pus was evacuated, and the mastoid was found to be carious over a space three quarters by one half an inch in extent. Recovery was complete in ten days, with perfect hearing.

Case II. Mrs. X. had purulent inflammation in the right tympanum for two days from a cold in the head. The membrana tympani was bulging, and incised with perfect relief to the pain and throbbing. The discharge continued, but gradually diminished for three weeks, when, perhaps from a slight exposure, though this is not certain, there was pain in the mastoid, which continued for four days, during which the patient was not seen by Dr. Green; at the end of this time the patient was seen, and there was decided œdema over the mastoid. Immediate operation was advised, but not consented to for another week, when the patient was much reduced by the pain, which had been constant. The operation was done under ether; a large abscess two inches in diameter was found under the periosteum; there was a fistula through the bone one eighth of an inch in diameter, through which the probe passed into the mastoid cells. There had been no pain since the operation, and the patient was then recovering rapidly. The perforation of the membrana tympani had healed, and hearing was quickly restored.

Œdema comes on slowly and almost imperceptibly, but when it can be diagnosticated with certainty there is almost surely suppuration beneath the periosteum, and the earlier the periosteum is incised the less is the likelihood that the bone will be affected. Fluctuation is very difficult to make out in this region, owing to the inflammation being beneath the strong fibrous insertion of the sterno-cleido-mastoid muscle and beneath the periosteum, and long before pus becomes superficial it is liable to spread and dissect up the tissues for a considerable space, with consequent extensive injury to the bone. In both the above cases there was strong opposition by other physicians to any operation, as they were unwilling to believe that what seemed a slight œdema only could be dependent on such extensive trouble in the bone. The only safe rule is that laid down by Sir William Wilde thirty years ago, namely, as soon as any redness, swelling, or œdema shows itself in the tissues over the mastoid during the course of a purulent tympanic inflammation to incise the periosteum freely. If suppuration has commenced, the evacuation of the pus is necessary; if suppuration has not occurred, the free bleeding will very likely prevent its appearance. The operation itself is not dangerous, and can do no harm.

Optico-Ciliary Neurotomy. — Dr. Wadsworth showed two patients on whom he had performed this operation.

Case I. M. S. T., aged fifty-two, a laborer, was wounded in the left eye by a splinter of stone about a year ago. He was under treatment at the City Hospital for three weeks, going out with the eye quiet, but the whole cornea leucomatous. Six months later the cornea began to be prominent, and three months ago the eye became painful, and the sight of the right eye grew weaker. He entered the hospital again January 15th, with the left eye painful, its cornea staphylomatous, opaque, and complaining of sensitiveness of the right eye. On the 17th the left internal rectus was divided, the opening in conjunctiva and capsule enlarged, and the opticus and ciliary nerves divided, the eye being rotated outward, so as to bring the stump of the opticus into full view. The tendon of the internal rectus was reunited by catgut suture, and a bandage was applied. The following night the man, who had been in the habit of drinking liquor freely, was found out of bed and screaming " murder," but he was quieted and slept the rest of the night. On removing the bandage the next day there was very considerable exophthalmos, the lower lid was rolled in a little, and two thirds of the height of the cornea were exposed between the lids. Though the lids could be readily drawn over the globe, they slipped aside so as to expose it as soon as left to themselves, and a bit of linen smeared with cerate was laid under the bandage.

Pain in the eye was relieved immediately by the operation, though there was some tenderness of the lids for two or three days. The anæsthetic cornea was exposed between the lids for several days, and its surface ulcerated somewhat; and at the end of a week, when the exophthalmos had much diminished, the corneal staphyloma had increased. February 1st the exophthalmos had entirely disappeared. The staphyloma was larger than before operation, and the aqueous was evacuated with a paracentesis needle; it has been evacuated in the same way every second day since. Now the cornea is flatter than before operation, and less white, and except for the still existing congestion of the conjunctiva the eye looks better than before operation. Movements are free, but there is slight divergence. There is no pain; the right eye is comfortable, and its vision is good.

Case II. W. G. M., aged forty-eight, entered the City Hospital January 24th. Two months before he was struck in the right eye by a piece of a fishing rod which he was turning. The sight of the eye was lost at once, and much of the time since he had suffered severe pain in the eye and right side of the head, with much sensitiveness to light in the left eye. On entrance there was an irregularly cicatrized wound at the inner side of the right cornea, there was no anterior chamber, the pupil was entirely closed. The bulbar conjunctiva was thickened and much congested. There was great photophobia. On the 27th the optic and ciliary nerves were divided as in the other case. Exophthalmos was moderate. There was little pain in the head the following day, none afterward, and the photophobia was relieved immediately. On the second day he had iced compresses over the eye at intervals, and later more constantly. The exophthalmos is now gone, the congestion is much diminished, the movements of the eye are free though forced, convergence is not so great as in the other. The cornea is anæsthetic.

From present experience of this operation, it seems quite as effective for the relief of pain and the avoidance of sympathetic ophthalmia as enucleation, and the anatomical conditions which obtain are such as to make it extremely improbable that reunion of the nerves should take place. The satisfaction which most patients would feel in preserving even a not very handsome eye instead of wearing an artificial one can hardly be overestimated.

COHEN ON DISEASES OF THE THROAT AND NASAL PASSAGES.[1]

We congratulate the medical profession on the possession of this long-expected second edition of Dr. Cohen's treatise. Many changes have been made in the text and illustrations, and much new matter has been added, so that this book now stands easily first in its department in any language. It is a monument of exhaustive reading, conscientious, painstaking work and large clinical experience, and affords a cyclopædia of existing knowledge in regard to throat and allied diseases, and deserves a place in every practitioner's library.

SEILER'S HAND-BOOK OF DIAGNOSIS AND TREATMENT OF DISEASES OF THE THROAT AND NASAL CAVITIES.[2]

This is a convenient little manual for students, of about one hundred and fifty pages. The author naturally has no space to discuss different instruments or modes of treatment, but only sufficient to recommend those which he prefers. Many specialists would choose other instruments and methods. In our opinion, for instance, no head-reflector compares with Türck's for comfort and ease of adjustment, and yet its principle is not mentioned. The rectangular steel forceps of Mackenzie are recommended over all others for the removal of neoplasms. For most cases we do not like them. For haphazard diving after growths they may do, and yet even then their shape makes them awkward to introduce. But when an instrument is to be passed cautiously into the larynx, its point being watched in the mirror till it reaches the growth, we think, in the first place, that a catheter-shaped one, which rests firmly on the epiglottis, is preferable; and, in the second place, that one less bright, and hence less capable of reflecting the light, is to be desired. Among tube-forceps no allusion is made to the great improvement of closing the forceps by pushing the tube over them instead of by withdrawing them within the tube away from the object sought. In a word, though a good manual for Dr. Seiler's students, many teachers would not like it for their own. This is not said in disparagement of Dr. Seiler's methods, but in recognition of the fact of the great diversity of practice at present existing in the domain of laryngology.

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[1] *Diseases of the Throat and Nasal Passages.* A Guide to the Diagnosis and Treatment of Affections of the Pharynx, Œsophagus, Trachea, Larynx, and Nares. By J. Solis Cohen, M. D., etc., etc. Second Edition, revised and amended. Two Hundred and Eight Illustrations. New York: William Wood & Co. 1879.

[2] *Hand-Book of Diagnosis and Treatment of Diseases of the Throat and Nasal Cavities.* By Carl Seiler, M. D., Lecturer on Laryngoscopy at the University of Pennsylvania, etc. Philadelphia: Henry C. Lea. 1879.

LEISHMAN'S MIDWIFERY.[1]

This new edition has evidently been carefully revised by its author. Several new plates have been added, which must atone for the worn appearance of the old plates, which have all been retained. A few only of the notes by Dr. Parry which appeared in the last edition remain, the great bulk of his addition having been, we think wisely, either incorporated in the text of the book itself, or else altogether omitted.

In many respects this edition is a very great improvement on the previous ones. The priority of bimanual version, heretofore given to Dr. Hicks, is rightly ascribed to Dr. M. B. Wright, of Cincinnati. Allusion is also made to Maxson's postural version. We regret that the author still adheres to the use of the straight forceps, but are glad to see that he retains in full Dr. Parry's note in favor of the curved instrument. A brief mention of secondary hæmorrhage has also been added.

The chapters on puerperal septicæmia are far in advance of what the author has heretofore written, and we congratulate him that the day has arrived, to which he rather skeptically alluded in his last edition, when writers on obstetrics are willing to read "puerperal septicæmia" for "puerperal fever," although we are sorry to see that he yet occasionally, and we think inconsistently, uses the term puerperal fever, as though he were still dealing with a specific puerperal poison. We notice an absence of any mention of the value or use of intra-uterine injections in these cases, and must regard his treatment of this class of cases as deficient in many respects.

No allusion is made in the work to those rare cases of contraction of the internal os which have been recently so graphically described by Bandl and Hosmer, and which are now clearly admitted by obstetricians to be a most formidable complication of labor. The book, however, is greatly improved, and as such will be welcomed by those who are trying to keep posted in the rapid advances which are being made in the study of obstetrics.

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[1] *A System of Midwifery.* By Wm. Leishman. Third American edition, revised by the author, with additions by J. S. Parry. 1879. Pp. 732. Philadelphia: Henry C. Lea.

ANÆSTHESIA UNDER PRESSURE.

The administration of pure nitrous oxide gas, which, as is known, is used under ordinary atmospheric pressure, can be employed only in operations of short duration, for asphyxia threatens the patient as soon as sensibility disappears. This method, therefore, has heretofore remained almost exclusively in the hands of dentists. The *Lancet* of October 4th, however, gives interesting details of experiments by the distinguished M. Paul Bert, in which he used a mixture of nitrous oxide and oxygen in an air-tight chamber, in which was maintained a pressure a little greater than that of the air. M. Bert has gone further than this, and his observations, in which the subject is transferred from the domain of mere experiment to that of practical surgery, were recently communicated to the *Académie des Sciences.* In his first observation he described the removal of a nail by M. Labbé. The patient was a young girl, timid and nervous. In a closed chamber of sheet-iron the atmospheric pressure was increased .17 m. (total pressure, .92 m.). The patient lay upon a mattress; the nose-piece of the apparatus employed for the administration of pure nitrous oxide was connected with a bag containing a mixture of eighty-five parts nitrous oxide and fifteen parts of oxygen.

Previous to the administration the pulse was rather rapid, when suddenly, ten or fifteen seconds after the first inhalation, without change in the pulse respiration, or color of the skin, without agitation or excitement, the arm became thoroughly flaccid, insensibility and muscular relaxation were complete, and the cornea was insensible to the touch. The operation was begun and finished without movement on the part of the patient, who remained in a calm sleep, the pulse having fallen to the normal frequency. At the end of four minutes, when the operation was over, slight contractions occurred in one arm, then in one leg. The patient continued to sleep for thirty seconds, and was then easily awakened. She stated that she felt well, but very hungry. She was able to walk, took food almost at once, and complained of no disagreeable consequences.

The difference between the effects of this anæsthetic and those of chloroform and ether is strikingly shown by the quickness with which anæsthesia was produced and the speed of its disappearance.

Other more important operations were performed by M. Péan, namely, three amputations of the breast, four operations upon bone, six extirpations of tumors, a resection of the infra-orbital nerve, two reductions of dislocations of the shoulder of three or four days' standing. Anæsthesia was maintained during periods varying from four to twenty-six minutes. The time occupied in producing anæsthesia was from fifteen seconds to two minutes. Complete return of sensibility commonly took place in one minute. In one case a partial return of consciousness occurred. The patient began to talk, but felt no pain. One inhalation arrested her speech. After recovery she did not remember the incident. If at the outset the pulse were quickened, it resumed the normal frequency when anæsthesia was established. In three cases there was slight nausea, due, however (as supposed), to new india-rubber mouth-pieces or bags employed in these particular cases. A more frequent and unpleasant accident is the appearance of spasm in the limbs. M. Bert is certain that this was due to insufficience of the pressure under which the gas was administered.

The summing up of the advantages of this method as claimed by him may be seen in the *Lancet* for October 4th. But as this journal remarks, "his estimate of its relative advantages, however, must be considerably modified if we compare it, not as he does, with pure nitrous oxide, but with the mixture of this gas and ether, which Mr. Clover has found so valuable, and which possesses several of the advantages of Bert's method, to which the necessity for an air-tight chamber is a serious drawback."

The method should be investigated and fairly tested, especially so because it appears to be devoid of all danger and disagreeable after-effects to patients. It would seem, however, as if the necessity of having an air-tight chamber would prove the great obstacle to M. Bert's discovery.

MEDICAL NOTES.

— The American Public Health Association held its seventh annual session last week. A large number of very valuable and interesting papers were read. The address, by the president, Dr. Cabell, was a history of the work done by the National Board of Health. Papers by Colonel Waring, and Mr. Eliot C. Clark, were read. Dr. Thompson, of the Memphis Board of Health, gave an interesting account of the late epidemic. Dr. Gihon read an article on The Protection of the Innocent and Helpless Members of the Community from Venereal Diseases and their Consequences, which was received with great favor. Dr. Billings was elected president for the ensuing year, a well-merited compliment for his brilliant services in the cause of health. It was voted to meet in New Orleans in 1880.

— "Syphilis," says Dr. Podolinski, in a communication to the Medical Congress of Montpellier, "is the principal scourge of the rural populations of nearly the whole of Russia, but its ravages are greatest in the south. In some villages one third of the families are contaminated. Heredity and marriage are the principal means of its propagation, but special causes exist, especially in the government of Kiew, where there are beet-root plantations and manufactories of sugar, but a dearth of workmen. The employers therefore promote artificial increase of population by offering such attractions that young people leave their families for the plantations, where they are excited by music and intoxicating drinks, every opportunity being offered for unrestrained intercourse of the sexes. At the end of the season the girls return to their homes tired, demoralized, and diseased.

— The managers of the morgue in Paris are bringing into use a freezing apparatus which will enable bodies brought for identification to be kept a considerable time. Since the beginning of the year the morgue has been used for practical demonstrations in connection with the chair of legal medicine. This teaching attracts many foreign students. Could it not be adopted in Boston to a limited extent under the medical examiner system?

— The following resolutions were presented October 30, 1878, and adopted by the American Academy of Dental Science: —

Resolved, That the use of public prints for advertising pretended professional merit is derogatory to the dignity of the profession, and should be strongly discountenanced by its members.

Resolved, That among regular practitioners any disparagement of their Fellows to patients or the public is a serious infraction of true ethics, tends to lower the profession in public estimation, and to debase the individual detractors, and should be condemned by all who have the best interests of the profession at heart.

NEW YORK.

— The Board of Apportionment has assigned $1,294,183.34 for the running expenses of the Department of Charities and Correction, and $236,000 for those of the Health Department during the year 1880.

— The annual meeting of the Medico-Legal Society was held at the Academy of Medicine November 5th, when the retiring president, Mr. George H. Yeaman, and the president-elect, Dr. Charles S. Wood, delivered valedictory and inaugural addresses. After these followed an interesting discussion on a paper read by Dr. R. J. O'Sullivan at the previous meeting, the subject of which was State Medicine, The Relations of the Professions, Responsibility of Civic and Educational Authorities in the Promotion of Public Health.

— At the seventy-fourth annual meeting of the New York County Medical Society Dr. John C. Peters, chairman, read an extended report from the committee on hygiene, which contained many points of interest. During 1879 small-pox has been more prevalent than usual, although not at any time alarming in its extent. For the first nine months of 1878 there were only two deaths from the disease in the city, and as there were none at all in 1877, the total mortality from it for the two years was unprecedentedly small. The disease broke out in April of the present year in an obscure tenement house in Third Street, and one child died from it before the health authorities were advised of its existence. The child did not contract the disease in the city, but was seen at the beginning of the attack, it is believed, by a physician who neglected to report the case. From this case as a focus the contagion spread gradually, until sixty-four cases had been reported, of which no less than thirty-four proved fatal. The incident was not without beneficial results, however, in awaking the poorer classes to the necessity of having their children vaccinated, and during the first nine months of the year 39,574 vaccinations were performed by the vaccinating corps of the board of health. Bovine virus is now used exclusively by the corps, as it is believed that it is more efficient as a preventive than humanized, while it is not open to the objection of communicating other diseases. The mortality from typhoid fever has been notably less than in preceding years, and the same is true of typhus fever. From the figures presented by the death-rates from these diseases during the last few years, Dr. Janeway, of the health board, argues that the stringent sanitary control exercised by the board over the tenement houses and their population is beginning to be felt in decreased rates of mortality from preventable causes. Diarrhœal diseases have also been steadily decreasing in number since 1876, when the mortality from this source was 3060. The decline began with the summer excursions and other agencies for getting children into the country for a longer or shorter time in 1877, the mortality for that year having been 2657. Last year, with a better organization of such facilities, the deaths were over 600 less than in the year preceding, a diminution which Dr. Janeway ascribes in a great measure also to the work accomplished by the extra corps of physicians employed by the board of health to make house-to-house visits in the tenement districts during the summer. The mortality from whooping-cough and scarlatina, on the other hand, has been considerably greater than usual. During the first nine months of 1879 there were 466 deaths from the first disease, and the number of deaths from the second, 1370, is greater than for many years previous. In the same period of 1878 there were 741 deaths; of 1877, 781; of 1876, 693; of 1875, 415; of 1874, 730; of 1873, 736; of 1872, 302; and of 1871, 608.

Dr. Peters also read the report of the committee appointed to solicit aid for the families of physicians who had died from yellow fever during the prevalence of the disease in the various cities of the South in 1878 and 1879. The total amount received by Dr. Peters for the purpose named was $4998.10, of which he has distributed $3700, leaving a balance of $1298.10. The number of physicians who died during the epidemic of 1878 was 101. Dr. Peters read several letters from physician's widows who had been aided by the fund, and stated, in conclusion, that the money on hand would all be properly applied in a short time. Dr. Farnham, from the same committee, reported the receipt of $1158 for the same purpose, all of which had been expended.

— A physician of this city recently forwarded to the Bureau of Vital Statistics a certificate of death from acute capillary bronchitis of a man employed in the manufacture of harness mountings. The certificate, in which it was explained that the disease was caused by the inhalation of the fumes of nitric oxide during the processes of electro-plating, was sent to Sanitary Superintendent Day, who has detailed one of the inspectors of the board of health to make an investigation of the electro-plating business, the object being to collect data upon which to base a report urging such changes in the processes as may prevent the inhalation of poisonous fumes.

ST. LOUIS.

— On the 9th inst. Dr. Thomas Kennard died in this city of cirrhosis of the liver. He had suffered from the usual symptom, ascites, for nearly two years. He was an ex-president of the St. Louis Medical Society, had practiced in St. Louis for the past nineteen years, and held a high position in the profession. He was a native of Maryland, and his remains were taken there to be buried.

BOSTON CITY HOSPITAL.

SURGICAL CASES OF DRS. INGALLS AND GAY.

[REPORTED BY W. H. HOLMES, M. D., HOUSE SURGEON.]

Compound Comminuted Fracture of both Femurs; Recovery. — On September 28, 1878, Philip C., aged thirty-one, fell under a horse-car, and its wheels passed over both thighs. There was found to be a compound comminuted fracture of each femur just above the condyles. On the left there was a wound about one inch long over the anterior portion of the lower third, and one of nearly the same size over the corresponding point behind. On the right thigh there were three wounds, about an inch long, on the anterior, anterior and outer, and posterior sides of the lower third. The patient being etherized, Dr. Gay sealed the wounds with compound tincture of benzoin, put the legs in long fracture boxes, and packed the thighs up with oakum. No food was given on account of vomiting. Shock of injury moderate. Pulse 78, and of fair strength. The patient was anæmic and feeble.

For several days he was nourished by the rectum, as he vomited whatever he swallowed. He was unable to pass his urine, which was drawn with a catheter. On the seventh day the fracture boxes were removed, and ham-splints applied. On this day a slight discharge was noticed from one of the wounds. On the fourteenth day an extension of one and one half pounds on right leg, and of three pounds on left, was applied. The condition of the patient continued steadily to improve, and in the twentieth week all apparatus was removed, and a flannel bandage applied. There was good union in both femora, but very slight motion in hips, knees, or ankles. Passive motion applied daily to joints. He was discharged from the hospital April 28, 1879. He was then able to walk down the ward holding on to the beds. There was good union on each side. The ankle, knee, and hip joints were slowly regaining motion. When last heard from he was able to walk with the aid of a cane.

Foreign Body in Bladder; Lithotomy; Recovery. — June 20, 1879, Thomas H., aged forty-seven, introduced the stem of a glass tobacco-pipe, one fourth of an inch in diameter, into his urethra for the purpose of emptying the bladder. When, as he thinks, the tube had nearly reached the bladder it broke, leaving a piece an inch and a half long in the urethra. A physician was called, who, to relieve the retention, passed a catheter, forcing the piece of glass into the bladder. The patient suffered some pain in the bladder, but at no time was it excessive, nor was the urine bloody. Ten days after the accident the patient entered the City Hospital in the service of Dr. Ingalls. A hard body could be felt in the bladder by the sound, and a sharp click was elicited. The third day after admission, the patient being etherized, Dr. Ingalls tried to withdraw the foreign body by a lithotrite, but though it was caught hold of it could not be drawn out. Two days later Dr. Ingalls performed lateral lithotomy, and extracted the piece of glass; there was a slight crust of triple phosphate upon it. On the day after the operation there was a prolapsus of a portion of the rectum, larger than the end of a thumb, folding over the posterior angle of the wound. This was reduced at once by the finger, but soon reappeared; it was touched once with lunar caustic, steadily grew smaller, and by the end of three weeks there was no protrusion. On the twenty-fifth day after the operation urine no longer passed through the wound, and on the forty-fifth day the wound had healed, and the patient was discharged well.

Compound Dislocation of Elbow; Recovery. — On the evening of June 24, 1879, Annie M., aged thirty-six, while drunk, fell down four steps of a flight of stairs, and injured her right elbow. On entrance there was found to be a compound backward dislocation of radius and ulna. There was a lacerated wound three inches long on the inner side of elbow, through which the ends of the bones could be seen and felt. The soft parts about the elbow were much bruised and lacerated. There was also a fracture of the radius just above the wrist. As Dr. Ingalls was absent, Dr. Homans saw the patient, and advised immediate amputation or resection, to which the patient would not consent. Dr. Homans then reduced the dislocation, the patient being etherized. The wound was packed with charpie soaked in carbolic oil, and a rectangular external splint applied. The second day the elbow was much swollen and the wound offensive. Dr. Ingalls advised amputation or excision, but the patient declined any operative interference with the joint. Contrary to expectation, from this time the condition of the arm steadily improved, the only complication being the formation of an abscess on the inner side of the fore-arm, just below the elbow, which discharged through a spontaneous opening into the original wound. There was considerable discharge for about three weeks. On the forty-third day the opening had healed, and the arm was put in a stiff bandage, the elbow being flexed at a right angle. The Colles's fracture received no treatment but rest. The patient was discharged on the forty-eighth day, with the bandage still on. Two weeks after her discharge she had the stiff bandage removed in the out-patient department. The fore-arm could not be flexed or extended, but the hand could to a slight degree be supinated and pronated. There was some inward projection of the lower end of the ulna. There was considerable motion at the wrist. When last seen she could make but little use of her hand or arm.

October 4th, eighty-eight days after the accident, the arm was examined, and arm and hand were found in about the same condition as above indicated. The patient declared that she suffered much pain throughout the limb, and that little bits of bone had come away. If this be true, they must have come through the yet tender cicatrix which soon closed after their passage.

POISONING BY CORROSIVE SUBLIMATE AND BY CARBOLIC ACID.

Mr. Editor, — Two cases of poisoning have come under my immediate notice. In one I was permitted to make a post-mortem examination, which may render a report useful. The other case, as it was from carbolic acid, about which as a poison little seems to have been said, may serve to impress upon your readers a very important property of this drug.

Both the cases occurred at the St. Louis Female Hospital, under the care of Dr. P. V. Schenck, resident physician, and myself, assistant physician. One of the patients, Alice W., who was convalescing from intermittent fever, complained of constipation, and a dose of sulphate of magnesium was ordered. The nurse had solutions of sulphate of magnesium and of corrosive sublimate in similar bottles, but plainly labeled; by mistake, however, she gave the mercuric salt in a dose of about sixty grains.

I saw the patient probably within twenty or twenty-five minutes after the poison was taken. She had vomited freely, but large quantities of water and milk were given, and emesis produced, which was further encouraged by sulphate of zinc and ipecac. About an hour and a half after the accident, Dr.

Schenck, who had been absent upon business, returned, and two ounces of the white of eggs were given every ten minutes, till about twelve ounces had been taken.

Some three or four hours after the poison was administered there was an abundant discharge of urine and several evacuations of her bowels. The patient suffered little pain, and the following day her recovery seemed almost certain. The third day she was very weak, vomiting set in, and she seemed sinking. Bismuth in thirty-grain doses was given by the mouth; enemata of milk and whisky, two ounces each, were given every two hours, and hypodermic injections of tincture of digitalis when the heart's action grew weak.

The symptoms which characterized the case were suppression of urine, insomnia, and loss of appetite; only after several days was any abdominal tenderness developed.

Dr. Boisliniere was called in, and the acetate and chlorate of potassium were added to our treatment. Warm fomentations were applied over the hips and abdomen, and also leeches over the kidneys. I was told a small flow of urine followed the use of the leeches. Tincture of digitalis stupes were also used. On the morning of the sixth day two drachms of the fluid extract of jaborandi were ordered every hour till the patient perspired. About six P. M. she began to perspire, and the jaborandi was stopped; two hours later she died in convulsions, probably uræmic.

The post mortem was made twenty-seven hours after death. There were no signs of decomposition. There was marked hypostatic congestion of the lungs. The heart was relaxed and flabby. The œsophagus and cardiac extremity of the stomach were very much congested, but there were no signs of ulceration. The alimentary tract was not opened farther, but appeared to be congested, especially the small intestines. I had no means of weighing the kidneys, but they were from one third to one half larger and heavier than normal. They had not their usual flattened appearance, but were so distended with blood as to be nearly cylindrical, and upon section the blood could be squeezed from them in large quantities. The bladder was empty.

The post mortem pointed plainly to uræmia, produced by congestion of the kidneys, and that the best treatment would have been extensive local depletion. It is also possible that we erred in giving so large a quantity of albumen, as the insoluble compound formed by mercury and albumen is soluble in an excess of albumen. It might have been better to have induced vomiting every few minutes while the eggs were being administered.

Shortly after the patient died the nurse who had made the mistake went to her room, locked the door, and took about two ounces of carbolic acid. From the time she was seen alive till her door was broken open was not more than ten or at the most fifteen minutes. During this time she seems to have washed and dressed herself, and arranged herself very carefully on the bed, and then to have taken the poison. I was the first to enter the room, and immediately felt for her pulse, but was unable to find it. She gasped once or twice afterwards, but otherwise was motionless. Her death was so sudden that at first we thought she had taken prussic acid, but it proved to have been carbolic acid. The mouth and tongue were stained with it, and the bottle which had contained it was in the room empty. Unfortunately, no post mortem was allowed, but we suppose that she died from cardiac paralysis due to shock. Dr. H. C. Wood mentions in his treatise on Materia Medica and Therapeutics that carbolic acid has produced death almost as quickly as prussic acid.

M. HAYWARD POST.

ST. LOUIS.

SHORT COMMUNICATIONS.

GRITTI'S SUPRA-CONDYLOID AMPUTATION OF THE THIGH.

IN the *Medical Record* for April 12, 1879, is a paper entitled as above. In that paper it is recorded that Dr. Gouley, then an assistant surgeon in the United States army, performed a similar operation on a wounded soldier, December 13, 1862, the day of the battle of Fredericksburg. It was believed by the operator to have been an original operation, and also to have been the first of the kind performed in America. But in this connection it may be of interest to relate the following: —

After the battle of Antietam (September 17, 1862) it was determined to establish upon that battlefield a hospital for such severe cases as could not be conveniently removed to the general hospitals. Dr. Bernard Van der Kieft, United States volunteer surgeon, was detailed surgeon in charge of this hospital. Among the patients was a soldier with an amputation of the right leg. After some weeks it was found that the leg must be amputated at or above the knee-joint. Dr. Van der Kieft decided to amputate at the knee-joint by "*a new operation*" (as he said), and the operation was certainly new to his associates and assistants. He made a circular incision from the internal tuberosity of the tibia across the leg below the patella to the head of the fibula, dissected this flap up to about the middle of the patella, cut through the ligamentum patellæ close to the lower border of the bone, and turned back the flap. He then made the posterior flap by passing the knife beneath the femur, and cutting outward and downward. He then sawed through the femur just above the condyles, and removed a section from the posterior or internal surface of the patella by the saw. Next he adjusted the sawn surface of the patella to the sawn extremity of the femur, and adjusted the flaps in the usual manner. The patient died in about sixteen hours, on account of previous exhaustion.

In a few days the writer was ordered to his regiment (Fifth New Hampshire Volunteers), and was at the battle of Fredericksburg, December 13, 1862. The journey from Antietam to Fredericksburg required two days; hence Dr. Van der Kieft's operation was performed as early as the 9th of December, 1862.

I write this in justice to the memory of Dr. Van der Kieft, who is now dead. It detracts nothing from the fame of Dr. Gouley, affords me the great satisfaction of doing honor to my friend and superior officer, and places upon record another fact in surgical history.

It thus appears that Dr. Van der Kieft performed the second or third operation of the kind ever performed, and the first in America.

WILLIAM CHILD, M. D.,
Late Surgeon Fifth Regiment N. H. Vols.

BATH, N. H., *November* 6, 1879.

NEW PREPARATIONS.

A NEW AND CHEAP WATER-PROOF TISSUE.

SOME years ago Dr. W. W. Keen, of Philadelphia, introduced into St. Mary's Hospital of that city a sort of waxed paper, then in the market, as a substitute for the more expensive oiled silk, gutta-percha cloth, etc. In many ways the paper was unsatisfactory. It was not water-proof, it absorbed the discharges of wounds, etc., it tore easily, etc. Last winter Dr. Keen requested Seabury and Johnson, of New York, to make for him a paper coated with a combination of paraffine and rubber. They did so with such success that the new "water-proof paper" will undoubtedly replace every possible article of similar nature heretofore used. Upon receiving a sample of the paper, prepared according to his directions, Dr. Keen subjected it to severe comparative tests, the articles brought in competition being oiled silk, oiled muslin, taffeta oiled silk, paraffine paper, waxed paper, and gutta-percha tissues. Not a single one of these materials was able to bear all the tests through which the water-proof paper passed easily and successfully. In consequence, Dr. Keen claims that this paper (1) is impermeable to water after an exposure of at least seventy-two hours, and even after being repeatedly crushed and crumpled in the hand; (2) that it is impermeable to air, even when bruised; (3) does not absorb water or discharges; (4) that it may be used with the hottest dressings which can be borne; (5) that, although very flexible, it is strong enough for all ordinary wear, especially since it will be used only once; (6) that its cost is many times less than that of other similar dressings. What these tests were may be seen by reference to the Philadelphia *Medical and Surgical Reporter* for April 19, 1879, in which Dr. Keen's interesting account may be found.

This paper will prove valuable in all surgical dressings, and in the Lister method will be extremely economical as a substitute for the mackintosh cloth. The latter is not used because of its thickness, but simply because impervious to air. In this respect Dr. Keen's paper is equally serviceable. We call the attention of our readers to this very valuable addition to surgical and medical appliances, as its existence and usefulness are not generally known. Seabury and Johnson, at Dr. Keen's request, are now experimenting with a much heavier paper, which it is hoped will replace rubber blankets in cases of labor, typhoid fever, etc.

The price of the surgical "water-proof paper" is four dollars for a roll of one hundred yards. Messrs. Codman and Shurtleff and Leach and Greene have ordered a supply of this paper. The paraffine and waxed papers to be found in apothecary shops must not be mistaken for the water-proof paper. In comparison they are worthless.

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REPORTED MORTALITY FOR THE WEEK ENDING NOVEMBER 15, 1879.

Cities.	Population estimated for July, 1879.	Reported Deaths in each.	Deaths under Five Years.	Percentage of total Deaths from				
				The Principal "Zymotic" Diseases.	Diphtheria and Croup.	Lung Diseases	Scarlet Fever.	Diarrhœal Diseases.
New York	1,085,000	503	186	17.89	5.96	19.88	.99	5.77
Philadelphia	901,380	287	89	13.24	10.10	5.92	.35	—
Brooklyn	564,400	217	88	22.12	13.36	17.05	.92	.92
Chicago	—	145	60	37.93	19·31	8.97	11.04	2.76
St. Louis	—	96	33	18.75	5.21	6.25	1.04	4.16
Baltimore	393,796	137	51	24.09	9.49	5.11	5.11	1.47
Boston	360,000	160	53	29.38	16.25	6.88	3.75	2.50
Cincinnati	280,000	83	30	18.07	8.43	13.25	6.02	1.20
New Orleans	210,000	111	—	12.61	.90	12.61	—	4.50
District of Columbia	170,000	56	15	14.29	5.36	5.36	—	5.36
Cleveland	160,000	48	24	41.67	12.50	6.25	18.75	4.17
Pittsburgh	—	70	—	51.43	31.43	8.57	1.43	7.14
Milwaukee	127,000	39	18	28.21	23.08	5.13	—	—
Providence	101,500	45	8	35.55	8.89	2.22	24.44	—
New Haven	60,000	16	3	12.50	6.25	6.25	—	6.25
Charleston	57,000	35	10	14.29	8.57	2.85	—	2.85
Nashville	27,000	10	—	30.00	10.00	30.00	—	10.00
Lowell	53,300	17	5	11.76	5.88	11.76	5.88	—
Worcester	52,500	12	4	8.33	8.33	—	—	—
Cambridge	50,000	20	6	5.00	5.00	20.00	—	—
Fall River	48,500	17	7	17.65	5.88	—	11.76	—
Lawrence	38,200	9	5	11.11	11.11	—	—	—
Lynn	34,000	16	7	37.50	31.25	—	—	—
Springfield	31,500	5	—	—	—	—	—	—
New Bedford	27,000	15	6	26.67	20.00	—	6.67	—
Salem	26,400	10	5	40.00	30.00	20.00	—	—
Somerville	23,350	6	1	—	—	16.67	—	—
Chelsea	20,800	8	—	—	—	—	—	—
Taunton	20,200	3	—	—	—	—	—	—
Holyoke	18,200	5	3	60.00	—	—	60.00	—
Gloucester	17,100	9	3	11.11	—	22.22	—	—
Newton	17,100	8	3	12.50	12.50	37.50	—	—
Haverhill	15,300	7	—	42.86	28.57	—	—	—
Newburyport.	13,500	6	2	16.67	—	33.33	—	—
Pittsfield	12,650	—	—	—	—	—	—	—
Fitchburg	12,500	3	—	—	—	—	—	—
Milford	9,800	0	—	—	—	—	—	—

Two thousand two hundred and twenty-nine deaths were reported: principal "zymotic" diseases (small-pox, measles, diphtheria and croup, diarrhœal diseases, whooping-cough, erysipelas, and fevers) 490, consumption 344, lung diseases 247, diphtheria and croup 236, scarlet fever 76, diarrhœal diseases 64, typhoid fever 45, malarial fevers 24, whooping-cough 17, measles 13, cerebro-spinal meningitis seven, erysipelas six, small-pox one, yellow fever one. From *typhoid fever*, Baltimore nine, Philadelphia and Boston seven, Chicago four, Brooklyn and St. Louis three, New York, District of Columbia, and Pittsburgh two, Cincinnati, New Orleans, Cleveland, Providence, Gloucester, and Newburyport one. From *malarial fevers*, New Orleans seven, New York six, St. Louis four, Brooklyn and Milwaukee two, Baltimore, Cleveland, and Charleston one. From *whooping-cough*, New York five, Brooklyn and Boston four, Cincinnati, Cleveland, Pittsburgh, and Salem one. From *measles*, New York nine, Brooklyn and Chicago two. From *cerebro-spinal meningitis*, New York two, Philadelphia, Chicago, Baltimore, Lynn, and Haverhill one. From *erysipelas*, Brooklyn four, New York and Nashville one. From *small-pox*, New York one. From *yellow fever*, St. Louis (colored steamboat man).

The meteorological record for the week in Boston was as follows: —

Date.	Barometer.	Thermometer.			Relative Humidity.				Direction of Wind.			Velocity of Wind.			State of Weather.[1]			Rainfall.	
	Mean.	Mean.	Maximum.	Minimum.	7 A. M.	2 P. M.	9 P. M.	Mean.	7 A. M.	2 P. M.	9 P. M.	7 A. M.	2 P. M.	9 P. M.	7 A. M.	2 P. M.	9 P. M.	Duration.	Amount in Inches.
Nov. 9	30.168	59	67	46	86	55	76	72	SW	SW	SW	9	25	12	O	F	O	—	—
" 10	30.160	53	63	44	94	35	62	64	SW	NW	N	10	15	3	F	F	C	—	—
" 11	30.166	46	51	40	65	62	70	66	NW	SE	S	4	6	8	F	F	O	—	—
" 12	29.767	59	69	46	86	65	87	79	W	W	SE	3	6	4	F	F	G	—	0.11
" 13	30.139	42	52	40	100	83	100	94	N	NE	0	19	10	0	O	O	R	—	0.36
" 14	30.076	51	57	40	92	80	87	86	0	S	S	0	7	5	O	O	O	—	0.02
" 15	29 590	65	69	57	94	65	78	79	SW	SW	SW	8	16	25	O	O	O	—	0.02
Week.	30.009	54	68	45				77	SW			1622 miles						17.13	.51

[1] O., cloudy; C., clear; F., fair; G., fog; H., hazy; S., snow; R., rain; T., threatening.

For the week ending October 25th, in 149 German cities and towns, with an estimated population of 7,501,406, the death-rate was 23.7 against 23.8 of last week. Three thousand four hundred and eighteen deaths were reported: consumption 425, diarrhœal diseases 320, acute diseases of the respiratory organs 281, diphtheria and croup 138, typhoid fever 85, scarlet fever 79, whooping-cough 63, measles 30, puerperal fever 18, small-pox one. The death-rates ranged from 13.7 to 39.

For the week ending November 1st, in the 20 English cities, with an estimated population of 7,383,999, the death-rate was 21.9 against 22.1 of the previous week. Three thousand one hundred and three deaths were reported: scarlet fever 154, measles 79, diarrhœa 77, whooping-cough 58, fever 49, diphtheria 24, small-pox one (London). The death-rates ranged from 13.9 to 25.8. In the Belgian cities, diarrhœa continues, typhoid fever is less, and small-pox and scarlet fever are increasing. In Switzerland diarrhœa has fallen to less than half of last week's report, and small-pox caused three deaths.

OFFICIAL LIST OF CHANGES OF STATIONS AND DUTIES OF OFFICERS OF THE MEDICAL DEPARTMENT U. S. ARMY, FROM NOVEMBER 15, 1879, TO NOVEMBER 21, 1879.

Baily, E. J., lieutenant-colonel and surgeon, medical director of the department. Granted leave of absence for one month. S. O. 157, Department of the Columbia, November 3, 1879.

Meacham, Frank, captain and assistant surgeon, Fort Brown, Texas. Granted leave of absence for one month. S. O. 236, Department of Texas, November 8, 1879.

Carvallo, C., captain and assistant surgeon. To report in person to Col. Albert G. Brackett, Third Cavalry, commanding troops at Rawlins, W. T., for duty with his command. S. O. 102, Department of the Platte, November 10, 1879.

Smith, R. E., first lieutenant and assistant surgeon. Granted leave of absence for four months from December 1, 1879. S. O. 250, A. G. O., November 15, 1879.

The Gynæcological Society of Boston. — The next regular meeting of the society will be held at the Medical Library Rooms, first Thursday of December, at 10.30 o'clock, A. M. Paper by Dr. Ephraim Cutter on The Treatment of Uterine Fibroids by Electrolysis and by Food as a Medicine. The profession are invited.

Henry M. Field, M. D., *Secretary.*

Errata. — On page 731, No. 21, of the Journal, lines 19 and 22, "pepsin" should read "peptone." Page 751, Journal November 20th, 17th line, for "ingeniously" read "ingenuously."

Boston Society for Medical Observation. — A regular meeting will be held Monday evening, December 1st, at the hall of the Medical Library Association, 19 Boylston Place, at eight o'clock. Reader, Dr. E. M. Buckingham. Subject, Difficult Dentition.

Frederick C. Shattuck, M. D., *Secretary.*

Suffolk District Medical Society. — A regular meeting will be held at the hall, No. 19 Boylston Place, on Saturday evening, November 29th, at seven and a half o'clock. The following papers will be read: Dr. E. W. Cushing, Epidemics in Summer Hotels; Dr. C. E. Wing, Gynæcological Cases in Practice. Supper at nine o'clock.

Books and Pamphlets Received. — A Text-Book of Physiology. By M. Foster, M. A., M. D., F. R. S., Prælector in Physiology and Fellow of Trinity College, Cambridge. With Illustrations. Third Edition, revised. London: Macmillan & Co. 1879. (From A. Williams & Co.)

A New Theory in the Mechanism and Proper Treatment of Uterine Displacements. By George Cowan, M. D., Danville, Ky.

The Terminology of So-Called Rubeola, not Roseola. By Benjamin H. Riggs, M. D., Selma, Ala. (Reprint.)

An Examination of the Usual Signs of Dislocation of the Hip. By Oscar H. Allis, M. D., Surgeon to the Presbyterian Hospital, Philadelphia. 1879.

Vivian the Beauty. By Mrs. Annie Edwardes. Appleton's New Handy Volume Series. New York: D. Appleton & Co. 1879.

Emotional Fever. By Andrew Fleming, M. D., Pittsburg, Penn. Philadelphia. 1879.

The Riviera. Sketches of the Health Resorts of the North Mediterranean Coast of France and Italy from Hyères to Spezia. By Edward S. Sparks, M. A., B. M. Oxon., Fellow of the Royal College of Physicians, etc. London: J. and A. Churchill, New Burlington Street. 1879.

Annual Catalogue of Hartsville University, 1878–79.

Some Recent Opinions concerning the Development of the External Ear Passages. By David Hunt, M. D. (Reprint.)

Medical Register for New England. By Francis H. Brown, M. D. New Edition, much enlarged. Boston: Houghton, Osgood & Co. Cambridge: Riverside Press. 1879.

THE BOSTON
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THE MEMPHIS YELLOW FEVER EPIDEMIC OF 1879.[1]

BY G. B. THORNTON, M. D.,
President of the Memphis Board of Health.

THE appearance of yellow fever in Memphis during July last and the results which have followed its spread have attracted, perhaps, more attention than those of any epidemic of the same magnitude which has ever occurred in this country. The causes of its outbreak involve questions of profound interest, not only to the citizens of Memphis and country immediately adjacent, but to the entire Mississippi Valley, whose feelings of security and vast commercial and social relations have been so materially threatened or interfered with by its reappearance in our very heart. It is of particular interest to the American Public Health Association, to whom the people are beginning to look as the body which gives direction to legislation pertaining to public hygiene. The question of importation or of local origin is not definitely settled by the resident profession (each side has its advocates), nor am I myself satisfied as to the date and exact locality of the appearance of the first case. In every epidemic of yellow fever which has preceded this one, there has been no trouble in tracing the disease to direct importation. Similar questions arose with the epidemic of yellow fever in New Orleans last year. (See article by Dr. Jones in New Orleans *Medical and Surgical Journal* for March, 1879.)

The first case was reported to the health office on the 8th of July. The presumption is that the patient had been sick at least four days before death. An autopsy proved beyond question the nature of the disease. On the morning of the 10th a number of suspicious cases were reported, five of which proved to be yellow fever. These six cases were in three distinct localities in different wards of the city. The first one reported was in the sixth ward, No. 204 Desoto Street (Mulbrandon); three at one house in the tenth ward, at No. 425 Wellington Street (Judge Ray's), both in South Memphis, and two at one house in the eighth ward, No. 55 Bradford Street (Tobin's), in the extreme northeastern portion of the city, at least a mile on a direct line from either of the other two.

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[1] Read before the American Public Health Association at Nashville, November 20, 1879.

Two of these cases died during the night of the 9th. They were not reported to the health office earlier than the morning of the 10th. The physicians in attendance seemed not to have been sufficiently confirmed in their diagnosis of yellow fever to justify them in reporting these as such sooner. There had been no known communication between any of these cases. They were among people who had neither business nor social relations with each other. If we judge from the clinical history of the cases, each must have contracted the disease about the same time. One died on the afternoon of the 9th of July, two on the night of the 9th. The three were visited by different physicians, who at the time were not thrown together professionally; consequently it is not reasonable to suppose that the infection was conveyed from one to the other, nor is there evidence to prove that they contracted the disease from the same point about the same time. I am strengthened in this opinion from the occurrence of cases later in the summer and fall within the city and suburbs, when the infection could not be traced to direct communication with the sick, and where very scrupulous precautions were taken to prevent contagion. One death took place on the night of July 8th, at 81 Clay Street, in the tenth ward, in the neighborhood of the cases first reported (at 425 Wellington Street, Judge Ray's), and which was classed under the head of suspicious cases, but was treated as malarial fever. The attending physician afterward stated as his belief that it was yellow fever. This belief was confirmed by several parties contracting the disease a few days after the death occurred, who lived in the immediate neighborhood, at 86 Clay Street, and were with the party while sick. Error of this kind, if there was one, has repeatedly happened in the beginning of epidemics of this disease in the practice of experienced physicians. The gentleman above referred to may be justly so classed, for his experience has been acquired from four epidemics, in one of which he was the subject of the disease himself. I mention this circumstance as one throwing some doubt as to the reported case on the 8th being the first which occurred. After the 10th no more cases were reported until the 15th, and two of these were people who lived at 86 Clay Street, just referred to.

The disease has appeared in houses in the suburbs which were infected last year, among people who had no direct communication with the sick this year, and who observed very rigidly local isolation. Whether the infection was in the houses, or in the furniture, bedding, carpets, clothing, etc., is an open question with me, though, if contracted from either, I am inclined to think it was from the latter. All claim that their houses were thoroughly ventilated and exposed to the cold weather of last winter; many that artificial means of disinfection were used.

The house, 204 Desoto Street (Mulbrandon's), sixth ward, and 425

Wellington Street (Judge Ray's), tenth ward, and 53 Bradford Street (Tobin's), eighth ward, in which the three first cases reported occurred, were unoccupied last year during the epidemic; consequently we cannot attribute the origin of those cases to house infection. I have it on credible authority that when Tobin and wife returned to the city, after the epidemic of last year, they purchased and used some second-hand bedding, and that some bedding and perhaps clothing were used in Mulbrandon's house which had been used the year before during the epidemic by relatives who died of the disease. Whether any means of disinfection was tried or not I am unable to state. In the City Hospital, an institution I had charge of, there was the most thorough infection of everything pertaining to it in the way of bedding, ward furniture, etc. All available means of disinfection were used, not only while the epidemic lasted, but afterwards, of wards and ward furniture of every character. No case has occurred there this year which can be justly attributed to the infection of last year, though many of the same articles are in use. While this circumstance does not prove that the infection could not be held over, it is at least strong evidence that goods once known to be infected can be disinfected.

I was informed by Dr. W. L. Coleman, an inspector of the National Board of Health, that he had proof of importation which, to him, was conclusive. I hope he will demonstrate it as a matter of fact. I have seen no report from him on this subject, if he has made one, nor from any one else; consequently I am not prepared to discuss the importation theory. Being not only officially interested in Memphis, but personally so from long residence, and, as a consequence, from social and business interest, I am very reluctant to believe the disease originated among us; but the evidences of local origin are to me so positive, and those of importation so negative, as far as I know them, that I am forced to the conclusion that the disease arose from the infection of last year, which remained dormant until the atmospheric conditions favored its development. If such is the case, it does away with the theory of some physicians that, under these circumstances, the disease loses its specific character, and will not reproduce itself, or that an epidemic can be produced only by fresh importation. [See conclusions of the Board of Experts, authorized by Congress to investigate the yellow fever epidemic of 1878, page 15, paragraph 21.]*

If the disease was introduced here last June or July, as the case may be, from whence did it come? It is reasonable to assume that the National Board of Health would have been informed of its existence south of Memphis, or anywhere else in the country, if such had been the fact. At a convention of the Sanitary Council of the Mississippi Valley, held in Memphis, April 30th, it was agreed that all boards of health there represented should be promptly notified by cipher telegram of the appearance of the disease in the locality of either board. That cipher was never furnished me, and, consequently, I did not communicate the knowledge of the first case to the different boards, as agreed by the convention. The National and State Boards of Health were to be notified of the first case immediately by their respective resident members, Dr. R. W. Mitchell, of the former, and Hon. John Johnson, of the latter. How the report got into the press dispatches I do not know. The object of this cipher telegram was, as I understand, to give timely notice to those in authority to take such steps as they might think advisable towards quarantine.

Being an advocate of quarantine, as I am now, I insisted on the convention pledging itself to it under these circumstances. Fortunately the National Board of Health now assumes this responsibility, and will coöperate with any state, county, or municipal board of health which adopts and enforces its regulations and calls upon it. The past epidemic has demonstrated very conclusively the utility of this organization, in preventing the arbitrary and irresponsible local organizations known as "shot-gun" quarantines, the outgrowths of panic, which would be ridiculous were it not for the serious inconvenience they entail upon commerce and travel.

The experience of this epidemic, the first the National Board has had to deal with, has not only had the moral effect of allaying public apprehension, and given confidence in preventing the spread of yellow fever by the ordinary lines of transportation, both by river and rail, but has demonstrated the practicability of allowing commercial intercourse without serious impediment and very little inconvenience.

It is not reasonable to suppose that a perfect system of quarantine inspection of freight and passenger travel, especially under the impulse of harm from impending danger, could be enforced without some delay and annoyance. Defects which experience has developed will no doubt in due time be corrected, and the country in future will not only feel a sense of security which it has not heretofore had, but will enjoy the great practical good which must result from intelligent and efficient coöperation of an organized board of health system.

As soon as the disease was recognized all available means of disinfective isolation and depopulation were practiced, and for nearly a month the disease seemed, with the exception of a few cases, to be confined to the neighborhoods where it first appeared. This gave reason to hope that there would be no general epidemic over the city, and it was not until August 10th that formal announcement of a general epidemic was made. It was then impossible to say that any portion of the city was not infected, unless it was the ninth ward, or what is known as Chelsea, — a ward more isolated than any other, and occupied almost entirely by residences, many of which were vacated.

Yellow fever appearing as it did in July last at four known points (and perhaps others), in thickly populated neighborhoods in different portions of the city, at or about the same time, among a people susceptible to its influence, in an atmosphere favorable to its spread, disinfection and isolation alone, as heretofore practiced, could not be relied upon to eradicate, or, as technically termed, stamp it out. These means have failed repeatedly as a radical measure, when the disease has become firmly established under the above circumstances. (For stronger test of disinfection, see New Orleans *Medical and Surgical Journal* for March, 1879, article by Dr. Joseph Jones.) This year, in that city, these agencies seem to have proved more successful; perhaps the meteorological conditions were not so favorable to the spread of the disease, or the means for combating were better than before. The resident population there is not so susceptible as that of cities further north. While disinfection has proved inefficient heretofore in Memphis in stamping out the disease, not only in the last but also in the preceding epidemic, in both of which it was promptly and energetically practiced, I believe the disease can be eradicated by a thorough disinfection of household effects and infected places during the winter, and by a proper local sanitation. When this is accomplished Memphis, to have yellow fever again, must have it, as it had on every occasion previous to this one, by importation.

The disease may have been imported this year. If such was the case, the epidemic was, in my opinion, due to two causes, importation and local origin. The work of disinfection and destruction of infected goods was actively and persistently practiced by the local board of health from the date of the first death until August 16th. After that time, as per agreement between state and local boards of health at the McKenzie conference, the State Board assumed this duty, and with the assistance of the National Board prosecuted the work by the most liberal expenditure of disinfectants applied in what was thought to be the most approved methods. For a detailed account of this work reference is made to the official reports of Dr. J. W. Ross, inspector of the National Board of Health.

In August last, in response to a circular letter received from Dr. Turner, secretary of the National Board, inviting reports on the sanitary condition of Memphis and sanitary work being done there, I addressed him a communication, of which the following is an extract, and which is not irrelevant to this part of my subject: —

"As far as we are capable of judging from external appearances, Memphis at present is as cleanly as any city in the country of the same size; perhaps more so. There is not a public thoroughfare in or about the city that can be considered in an unsanitary condition, unless it is from the decayed and decaying portion of the Nicolson pavement blocks The work of cleaning streets and alleys was commenced in February, immediately after the organization of the Board of Health, and this feature of sanitary work has never stopped. The sanitary condition of private houses, aside from the objectionable system of privy vaults, will compare favorably with other cities, North or South."

It is a questionable point with me whether these vaults had anything to do with the origin of yellow fever here this year, though in the absence of proofs of importation I am of the opinion that the appearance of the disease was due to influences from last year's epidemic.

Whether these influences were from the miasms of privy vaults, impure sewers, polluted soil, or from fomites of woolen goods and bedding which had been used by the sick of last year and not properly disinfected afterwards, I will not now discuss. The general impression of the profession here is that the disease had its origin among us, and I at present participate in that opinion. The work of local sanitation is in daily progress, and everything is being done that is justifiable at this season of the year, and can be done under the existing circumstances. The work of disinfection, not only of houses where yellow fever occurs, but of all privy vaults, is being performed under the immediate authority of Mr. John Johnson, member of the State Board of Health, as per agreements made between state and local boards of health at McKenzie August 16th. These vaults, many of which were emptied of their contents during the past winter and early spring, are now being disinfected with strong solutions of sulphate of iron and lime. The disinfection of bedding, clothing, carpets, and rooms in which yellow fever occurs is promptly and efficiently treated with zinc-iron solution and fumes of sulphur. Bedding and fabrics that are so soiled as not to be rendered harmless by this process are destroyed by fire in a furnace constructed for this purpose. These goods are first saturated with carbolic acid, and carried in covered carts from the houses where used to this furnace, which is located under the bluff near the river, and there destroyed by a process which is thought to prevent the spread of the infection from them.

The work of taking up a portion of the wooden pavement and replacing it with stone is now in operation, and will be continued as fast as circumstances admit until it is all removed. The wooden blocks from the street are burned in the furnace as any other infected material, thereby serving a useful end for fuel. It is intended, as soon as the weather is cold enough to justify the work, to have every privy vault in the city emptied of its contents and filled with earth. These are to be replaced by earth-closets when it is impracticable to connect with a sewer and use a water-closet. There are two things in which Memphis is defective in regard to sanitation, and all sanitary work is but secondary compared with these essentials. These are a proper underground sewerage and a more thorough surface drainage. The sewerage at present is so limited as to be totally inadequate to the necessity.

The topography of the ground is such as to facilitate the former, and afford a very perfect system were the means at command for the work. The latter would follow as a consequence when the contemplated system of paving is complete which is now in progress. The soil here is of a light, porous character, which facilitates sewerage; consequently there exists in many localities an injurious soil saturation, which in some instances has rendered impure cisterns improperly constructed and in close proximity to the vaults.

The substitution of either dry earth or water-closets in place of the very objectionable system of vaults will be enforced at the expense of property owners this fall and winter, as rapidly as possible.

As so much has been published in various newspapers throughout the country, both editorially and by correspondents, about the neglect of sanitary work in Memphis, it is but simple justice to the present authorities briefly to refer to the condition of the city when the present government was formed.

The sanitary condition of Memphis was never as good as it should have been. With very good natural advantages, there has not been a proper system of sanitary work perfected to entitle it to a fair trial of resisting epidemic influence of any character.

The last epidemic of yellow fever was unprecedented in this locality, and all attempt at sanitary work worthy of mention was suspended during the epidemic until the following February. The Board of Health was disorganized by the death of Dr. J. H. Erskine, the health officer, and the illness of the president and secretary, Drs. Saunders and Brown, and when reorganized, after the epidemic, it did not receive that support which the necessities of the situation demanded. I suppose the neglect of this all-important work was due to the fact that those in authority anticipated what was then in contemplation, a radical change in the form of government, — that is, an abolition of the city charter by the state legislature, which convened in January, and perfected this change on January 29th. On the abolition of the charter a new government was formed, known as a legislative council, to administer the affairs of the city, now designated as the taxing district.

This legislative council was not organized until February 8th. (Thus causing an interregnum of about three weeks between the operations of the two governments.) It received none of the assets of the old corporation, nor did it assume any of its liabilities; consequently, it commenced with nothing in its treasury, and with no immediate credit, except what was granted to it by the individual indorsement of its members. It formed its ordinances and organized the several departments of government as rapidly as practicable.

The Board of Health was organized late in February, and at once commenced sanitary work. I will not attempt to describe the unsanitary condition of the city at this time, — indeed, no practical good would result from it. Suffice it to say that for seven months, in a city with a population of forty thousand, no public work, for reasons above given, had been attempted, and very little by private parties. Consequently, for the new government to put the city in a thorough sanitary condition in the brief space of four months, for several weeks of which all work was suspended pending a decision of the supreme court as to the legality of its existence, was simply impossible. However, its members seemed impressed with the importance of sanitary reform, and were disposed to enforce the health ordinances and execute the orders of the Board of Health as far as practicable.

The sanitary condition of the city on the outbreak of the yellow fever in July, aside from the decayed Nicolson pavement, as far as could be judged from appearances, was as good, if not better than, it had ever before been. All the streets and alleys had been thoroughly cleaned up in February and March, and an efficient system of garbage carts, modeled after similar systems in other cities, for the removal of daily accumulations, was in successful operation. This kind of sanitary work had never before been tried in Memphis. In addition to this public work a great deal of sanitary work was done by private individuals, a system of inspection being enforced by the Board of Health, through a limited number of sanitary police detailed from the regular police force. In May the operations of the Board of Health were supplemented by an organization of citizens known as the Auxiliary Sanitary Association, with Dr. R. W. Mitchell, of the National Board of Health, as its chief sanitary adviser. This association exhibited commendable zeal in the work it undertook, and rendered some valuable assistance to the Board of Health. I will here take occasion to refer to an official communication of September 22d, published in the *National Bulletin of Health* of October 4th, and if possible disabuse the writer's mind of some erroneous impressions he seems to be under, or at least answer the charge he makes in the following paragraph, in speaking of Memphis: "Sanitation as there practiced has not in my judgment been directed with the intelligence and zeal her terrible lessons might have been expected to arouse. The opposition to the enforcement of rule No. 6, concerning cotton, and the tearing up of the Nicolson pavement during the epidemic, are quite in keeping with the removal of fever-poisoned refuse and night-soil during July last.

"Dr. Johnson, of the board, and myself deprecated this latter action during our visit in July last, and discountenanced the proposition then mooted to remove the Nicolson pavement before the advent of cold weather."

The only privy vault cleaning after the first of June was in those cases where it was thought absolutely necessary, and where disinfection and deodorization were practiced at the same time, and all night-soil was conveyed to the designated point on the river in air-tight barrels.

This work was being done, then, to this limited extent after a conference with Dr. Mitchell, of the National Board, who was actively coöperating with the local board through the auxiliary association.

On June 12th the Board of Health published an order forbidding any more work of this character unless by special permit, when it was done only in extreme cases, and then under police surveillance. In regard to the tearing up of the Nicolson pavement during the summer, none was done until August 29th, after the disease had become epidemic through the whole city, and then only on a portion of a street, along which there were warehouses or cotton sheds, with the exception of a few houses, which were but partially occupied. Consequently, this could have had no influence in inducing the outbreak of yellow fever in July, nor did it influence its spread after it did appear. In this connection I will here introduce a communication made by myself to the legislative council on this subject, which I presume elicited the comment made by the correspondent of the *Bulletin* : —

MEMPHIS, *June* 5, 1879.

HONORABLE LEGISLATIVE COUNCIL : —

GENTLEMEN : In compliance with your instructions to give you an opinion in regard to the danger involved to the public health in the removal of the Nicolson pavement on Madison Street and replacing it with stone, from Main Street to the Charleston depot, at this season of the year, I have the honor to submit the following : —

The sanitary condition of this street at present is perhaps worse than any other in the city, owing to the fact that so much of the present pavement is decayed and already displaced. The removal of this and replacing it with stone by the plan proposed does not, in my opinion, increase the liability to disease, as no grading of the street is proposed and the earth is not disturbed, the grade being already fixed. The space uncovered by the removal of the wooden pavement is to be re-covered the same day, or very soon, by stone, and the wooden blocks burned immediately, or otherwise disposed of so as not to be prejudicial to health. Leaving out of consideration the imperative necessity for the improvement of the street for the commercial interest of the city, I do not think the sanitary condition of the neighborhood will be made worse while the work is being done, but will be materially improved after the work is completed. In view of these facts, the present very bad sanitary condition, owing to the decay of the wooden pavement, there being no necessity for interfering with the earth for the purpose of changing the grade, the rapid mode to be employed in replacing it with stone, the great sanitary advantage obtained after the work is done, and the imperative necessity for the improvement to the commercial in-

terest, I have no hesitation in recommending the immediate execution of the work. Respectfully, G. B. THORNTON, M. D.,
President of the Board of Health.

The imputation that this work could have created yellow fever in Memphis is too absurd to admit of discussion. That it may have developed endemic diseases, towards which there may have been a predisposition, or intensified any disease which did prevail, is possible, but in this instance there are no facts to prove that such was the case. When the circumstances as expressed in the communication are considered, I hold that the advice was justifiable; especially when there was but one of the cases, that of Mulbrandon's, at 204 Desoto Street, which occurred on one of the paved streets, the other two localities where the first cases were reported being distant several squares from the pavement, — one, Tobin, at 55 Bradford Street, on one of the most elevated positions in the city, and the other, Judge Ray, at 425 Wellington Street, a wide, sloping street, more in the suburbs, though within the corporate limits.

As to any opposition to rule 6, the legislative council was represented during the epidemic only by Chairman D. S. Porter, the other members being absent.

He, both personally and through the local board, coöperated with and supported every order of both National and State Boards of Health, and enforced their rules as far as practicable. Now that the epidemic is over there can be no just objection to stating that while those in authority at Memphis duly appreciate the efforts of the State and National Boards to do all in their power for the good of Memphis and the people of Tennessee and adjacent States, and make proper acknowledgment for such services, they mean no disrespect and do not criticise their action in any spirit of fault-finding when they state that the preservation of the yellow-fever contagium in baled cotton is a purely theoretical question which is not verified by preēxisting facts, and the onus of proof rests on those who raised the question to show one instance, after the amplest opportunities for doing so are given, where seed or lint cotton handled in an infected locality, by the ordinary means of ginning, baling, or compressing, has been the medium for the transmission or propagation of the yellow-fever contagium.

The estimated population of Memphis at the commencement of the epidemic, according to the reports of Colonel Cameron, superintendent of camps, was 38,400. My estimate was that it was rather over 40,000 than under. There were in the several camps adjacent to the city, within five to ten miles, 24,800. According to his report, the number of inhabitants was reduced by depopulation to 18,500, of which 14,500 were blacks. I herewith append a tabulated statement compiled from the records of the Board of Health, showing the number of cases reported, also the number of deaths. Prompt and active depopulation prevented a repetition of a similar epidemic to that of 1878.

CASES.

Months.	White.	Colored.	Total.
July	153	35	188
August	320	363	683
September	240	208	448
October	132	73	205
November	8	—	8
Total	853	679	1532

DEATHS.

Months.	White.	Per Cent.	Colored.	Per Cent.	Total.
July	52	33.9	5	14.2	57
August	134	41.9	43	11.8	177
September	116	48.3	43	20.6	159
October	65	49.2	15	20.5	80
November	12	1.50	—	—	12
Total	379	44.4	106	15.6	485[1]

A CASE OF CYSTOTOMY FOR CYSTITIS.[2]

BY J. RICHMOND BARSS, M. D., MELROSE, MASS.

P. M., aged forty-one, Irish, consulted me in May, 1874, with the following history: Formerly he had been a sailor, but for the past fifteen years had followed the trade of a mason and whitewasher. He had enjoyed good health, but in 1850 had a slight attack of gonorrhœa, and has always indulged freely in alcoholic drinks. From 1866 to 1872 he suffered from occasional attacks of pain in the region of the left kidney. In 1872, while whitewashing a ceiling, he felt a sudden desire to micturate, and on attempting to do so passed a large quantity of blood; this hæmorrhage continued for three days. Since that time has had no pain in the kidney, but frequent and painful micturition existed, and at last he noticed that the urine was thick and ropy. Early in 1874 he went to the Massachusetts General Hospital, where he remained three months, when his friends removed him to his home. I was then consulted, and found him very weak and passing large quantities of urine full of mucus; micturition frequent and very painful. He was placed on tonics, and the bladder was washed out morning and night with a solution of carbolic acid; the neck of the bladder very sensitive to the touch of the double-current catheter. Soon after this treatment was commenced I was taken ill, and lost sight of patient till 1877; during this time he was under the care of numerous regular and irregular practitioners. In 1877 he returned to my care; I examined him for stone with a negative result. Ordered a mixture of iodide of potassium and fluid extract of ergot. Two months later the patient reported that he could retain urine for half an hour at a time, but at this stage of affairs he went off on one of his periodical sprees and gave up all treatment. In March, 1878, I was sent for, and found him in bed suffering intensely, the bladder more irritable than ever, micturition frequent, — every two or three minutes, — with intense pain all along the urethra. He was temporarily relieved by opiates, but his condition remained the same for the next week, when he begged me to do something for him, as his life was a burden to him. He had gone through the whole list of customary remedies, every available thing had been tried in vain, the patient was sinking fast, and nothing remained but the possible chance of an operation. With a full appreciation of the danger of an operation, he readily consented, preferring death to the great agony he was suffering. On April 1, 1878, being etherized and placed in the position for lithotomy, in the presence of Drs. W. S. Brown, J. S. Clark, L. D. Gunter, and Mr. Edwin Prior, medical student, the patient was again carefully sounded for stone, with the same negative result. I then did the lateral operation for stone, cutting into the bladder on a grooved staff; the finger was swept around the bladder, but no stone or tumor could be detected; the bladder seemed very much thickened. The patient was placed in bed, and a subcutaneous injection of morphia given. Ten P. M., seven hours after operation. The patient says he has not been so comfortable for years; urine running freely from wound. Suppositories of morphia and belladonna to be given if he has pain. April 2d, A. M. Temperature 100° F.; patient comfortable. P. M. Temperature 105° F.; has had a very restless afternoon from urine getting into the urethra and paining him. Ordered 2.65 grammes of sulphate of quinine to be given in four doses, and opium p. r. n. April 3d, A. M. Temperature 100° F.; put in a rubber tube about the size of English XV. catheter. April 4th. Patient had a good night; operation from bowels; temperature normal; appetite good. April 10th. Tube in bladder works well, but occasionally a little urine finds its way into urethra and causes severe pain for a few minutes.

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[1] 31.7 per cent. This report is made up to include November 15, 1879.

[2] Read before the Middlesex East District Medical Society.

For the next month the patient was placed on tonics and generous diet, and the urethra left alone. The urine continued very alkaline and full of pus. Early in May I began to pass a catheter and wash out the bladder; various things were tried, including carbolic acid, nitric acid, boracic acid, nitrate of silver, etc., etc., but there was no improvement in the condition of the urine. I then placed him on benzoic acid, beginning with 1.00 gramme per diem, and gradually increasing to 6.00 grammes per diem. On the twentieth day of this treatment the urine became neutral, but on the slightest decrease in amount of acid it returned to its alkaline condition, and by this time it was beginning to disturb digestion and irritate the throat, so it was stopped.

In July, the fourth month after operation, the patient began to get out-of-doors, and finally returned to his trade, besides working in his garden and going to and from Boston in the cars, all the while wearing his tube, which was connected with a urinal attached to his leg. He was by no means a well man, for in spite of the long rest given to the urethra, whenever a little urine passed through it it caused severe pain for a few moments, and his urine was still very full of mucus. Yet his condition was very much improved, his appetite good, weight increased, and he was partially able to earn his living; on the whole, his life was rather a comfortable one. During the last eight months of his life he gave up all medication, and occasionally went on sprees; his urine continued thick, but his tube caused no inconvenience, and a month before his death he went to a picnic and joined in all the dances. August 24th I was sent for, and found the patient in bed, where he had been two weeks, suffering from severe pain in the region of the left kidney. Counter-irritation was applied with relief, but the quantity of urine decreased, and he complained of severe headache, and finally became delirious; two days before his death he passed about 30.00 grammes of urine. Jaborandi caused profuse diaphoresis, the perspiration smelling strongly of urine, and on September 2, 1879, he died. Unfortunately, the friends objected to a post-mortem examination, but at the last moment I obtained permission to examine the bladder; in attempting to remove the left kidney it broke down in my fingers, a mass of detritus and pus. The right kidney seemed normal in size and condition, but I was not permitted to take it. I obtained the bladder, however. Dr. S. W. Abbott, of Wakefield, who kindly examined the specimen, reports as follows: "The walls of the bladder were thickened and contracted. Right ureter atrophied and impervious. Left ureter large and pervious. Prostate of normal size. A small mucous tumor projecting into the urethra at the point where it leaves the bladder."

To sum up the case briefly: We have a man greatly addicted to spirit drinking, with a severe chronic cystitis and kidney disease of four or five years' duration, worn out by continual suffering, and brought to the lowest condition of exhaustion, relieved and made comfortable for seventeen months by the operation; a sufficiently encouraging result to lead us to hope that under more favorable circumstances a better result might be obtained, or at least, like tracheotomy, if it does not save our patient, it will enable him to die in comparative comfort. Surgical authorities, so far as I have been able to consult them, say little or nothing about this operation for such cases. Bryant, under the head of Ulceration of the Bladder, says: "It is a question, however, in the severer forms whether an incision into the bladder, as for lithotomy, would not be sound practice, the urine then flowing away as secreted, and a chance given to the bladder to recover itself; at any rate, the operation would give relief." Dr. Robert Battey, of Georgia, reported a case of Cystotomy for Cystitis in 1869. A writer in the *Medical Record* for December, 1872, says: "Dr. Powell, of the Rush Medical College, has advocated this mode of treatment for chronic cystitis in his teachings since 1866, and considers it a standard operation, which need not be left as a *dernier ressort*, but which may be practiced with much benefit early, before the vesical walls become much changed by inflammation."

RECENT PROGRESS IN DERMATOLOGY.

BY JAMES C. WHITE, M. D.

Microscopical Studies on Cutaneous Inflammation. — Dr. Heitzmann, of New York, in his paper presented at the last meeting of the Dermatological Association, offers,[1] as the results of his studies, the following conclusions: —

(1.) In epithelium the first step of the inflammatory process consists in an increase of the living matter both in the protoplasmic bodies and between them; the former produces the coarse granulation of the epithelia, the latter the thickening of the so-called "thorus" in the cement substance. Any particle of living matter, both in the epithelia and between them, through continuous growth, may lead to a new formation of epithelial elements, with the termination in hyperplasia of epithelium (psoriasis, squamous eczema, horny formations, etc.).

(2.) In connective tissue the first manifestation of the inflammatory process is the dissolution of the basis substance and reappearance of the protoplasmic condition. By this process and the new formation of medullary elements, which may start from any particle of living matter, the inflammatory infiltration is established. The sum total of the inflammatory elements, which remain united with one another by means of delicate offshoots, represent an embryonal or medullary tissue. If the new formation of medullary elements be scanty, the resolution is accomplished by re-formation of basis substance (erythema, erysipelas). If, on the contrary, the production of medullary elements be profuse, a new formation of connective tissue will result, hyperplasia (scleroderma, elephantiasis, etc.).

(3.) The plastic (formative) inflammation may be accompanied by the accumulation of a larger amount of a serous or albuminous exudation in the epithelial layer (miliaria, sudamina, herpes), or in the connective tissue of the derma (urticaria). In both instances complete resolution will ensue.

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[1] Archives of Dermatology, October, 1879.

(4.) Suppuration in the epithelial layer of the rete mucosum is produced by an accumulation of an albuminous or fibrinous exudation, by which a number of epithelia are destroyed, and by new formation of pus corpuscles from the living matter of the epithelial elements themselves. Epithelial suppuration heals without the formation of a cicatrix (eczema madidans and pustulosum, impetigo, pemphigus, variola).

(5.) Suppuration in the connective tissue of the derma results from the breaking apart of the newly formed medullary elements, which, being suspended in an albuminous or fibrinous exudation, now represent pus corpuscles. Pus is a product of the inflamed connective tissue itself, and always a result of destruction of that tissue. Suppuration of the derma invariably heals through cicatrization (abscess, furuncle, acne, ecthyma, variola).

Prickly Heat. — Dr. G. H. Fox, of New York, publishes,[1] in a popular account of this affection, some simple rules for its management, which will be found generally efficacious. In his opinion, the predisposing causes are prolonged and excessive summer heats, an injurious diet, and a disregard for cleanliness. The exciting causes are unnecessary clothing, and perspiration allowed to remain upon the skin. By uncleanliness he does not mean merely a lack of soap and water, but that mistaken notion of comfort and propriety which leads to the disuse of flannels in warm weather; for without a thin and porous texture in contact with the skin, no one can expect to be dry and clean. A fleshy person perspires freely, and the linen or cotton worn next the skin becomes soaked by perspiration, and acts like a poultice to produce diffused congestion with follicular inflammation, or becomes saturated with sour perspiration, which macerates the epidermis, and irritates the peripheral nerves. The chief end of treatment should therefore be to keep the skin dry, or, in other words, to cause the perspiration to be absorbed as soon as secreted, which will both prevent and cure the eruption. He advises the use of an alkaline diuretic and an absorbent powder. To supply these from the resources of the household he often advises starch powder to be used locally, and cream-of-tartar water to be drunk freely. In place of the latter a whey may be made by adding a half ounce of the bitartrate of potash to a quart of milk, boiling, and straining out the curd, or a pleasant effervescing drink by mixing half a teaspoonful of bicarbonate of soda with half a glass of lemonade. Even when the skin is already severely inflamed a cool bath and a little stimulation of the kidneys will immediately lessen the hyperæmia and check the intense pruritus. Lotions are rarely needed, unless a secondary eczema is established.

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[1] The Physician and Pharmacist, May, 1879.

Exfoliative Dermatitis. — In a paper[1] on this subject, by Dr. E. B. Baxter, of London, he presents its most important points in the following propositions: —

(1.) General exfoliative dermatitis is characterized by the two features embodied in its name: universal or very extensive distribution; profuse and continuous shedding of all epidermic structures. The subordinate characters, on which it has been attempted to found distinct categories, are none of them constant. Thus, the state of the cutis may vary from simple hyperæmia to brawny infiltration; the nails may escape or be completely destroyed; the surface may be quite dry, or there may be some cracking and oozing in the flexures, or the papillæ may ooze a little fluid beneath the epidermic squames, etc.

(2.) General exfoliative dermatitis may occur as a substantive disease in a previously healthy subject. It may, and commonly does, occur in persons suffering from, or liable to, certain constitutional forms of skin disease. When any one of these maladies becomes generalized, invading the whole, or nearly the whole, integument, it tends to merge its special features in those common to all varieties of exfoliative dermatitis, whether of primary or secondary origin.

(3.) The rare disease known as pemphigus foliaceus cannot always be distinguished from general exfoliative dermatitis supervening on other skin affections. That relapsing pemphigus tends, however seldom, to pass into this form is an additional argument in favor of its being related to the "dortrous group;" pemphigus foliaceus being to ordinary pemphigus what exfoliative dermatitis is to ordinary eczema or psoriasis.

(4.) There is reason to believe that the pityriasis rubra of Hebra is only a chronic form of exfoliative dermatitis, with the most acute varieties of which it is connected by a series of transitional phases.

(5.) When allowed to run its course without interference, general exfoliative dermatitis often tends towards a fatal issue. This may be speedy or the reverse. In the former case, it is preceded by rapid emaciation and loss of strength, with diarrhœa, albuminuria, fever of a remittent type, and pulmonary œdema; in the latter, death may be caused by some intercurrent malady.

(6.) The prognosis is always grave in general exfoliative dermatitis (especially in children). Its gravity appears to be proportionate to the extent of surface involved; to the depth to which the skin is infiltrated; to its rate of progress; to the resistance offered to specific remedies. It should be borne in mind that even in the most chronic forms (pityriasis rubra of Hebra) exacerbations may occur during which the patient's life is placed in jeopardy.

(7.) As regards treatment, it is certain that oily applications are to be preferred to baths and lotions. Internally, the administration of quinine in the more acute, of arsenic in the more chronic, phase of the affection has often proved beneficial. In certain cases, however, the disease resists the latter remedy. Neglect to remove secretions from under the scales is probably one cause of the occasional outbreak of multiple boils, and even abscesses.

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[1] British Med. Journal, July 26, 1879.

Bullous Eruption from Iodide of Potassium. — Professor Hyde, of Chicago, read a paper[1] upon this subject at the recent meeting of the American Dermatological Association, in which he gave not only the clinical history of a case observed by himself, but also a tabular comparison of the most marked features in all the instances of this rare affection hitherto recorded. His patient was a child eight months old, who in addition to an eczema of the head displayed, upon the limbs mostly, numerous vesicles and bullæ, varying in size from a pin-head to a pigeon's egg, and which were somewhat irregular in shape. They showed no disposition to rupture, but were firm and persistent, and contained a semi-gelatinous substance resembling boiled sago. The bullæ were of a dark purplish shade when fully developed, but the smaller ones, which contained a thick serum, were yellow or reddish-yellow in color. The skin surrounding them was perfectly normal in appearance. The patient had been taking the drug, 0.30 gramme daily, for a month preceding the eruption of the bullæ. They disappeared shortly after the discontinuance of the iodide, as in all the other cases recorded. Dr. Hyde draws from his study the following practical conclusions: that in eczema, where a distinctly vesicular or bullous eruption becomes suddenly apparent, the possibility that the iodide has been previously given should be carefully estimated; and that it is quite probable that the rare vesicular and bullous lesions occurring in syphilis may be induced by the same cause.

Hydroa. — Alfred Sangster, M. B., of London, presented a paper[2] at the recent meeting of the dermatological section of the British Medical Association, in which he described the various affections commonly classed under this title. The characteristic symptom seemed to be an erythematous eruption tending to vesicate. The latter preferred certain regions, especially the back of the hands and fore-arms. There was a tendency for the eruption to be symmetrical, although this was not constant. The character of the eruption varied according to certain unknown disturbing influences, either spreading slowly and centrifugally from primary centres, and giving an appearance of discrete spots, or advancing rapidly, and causing the well-known gyrate and marginate pattern by confluence. The process appeared to vary in intensity periodically; and associated with this remittent tendency occurred vesication, either taking the form of a central vesicle or bulla, or that of a collection of closely-set vesicles on the advancing erythematous margin. Although the extremes of the series differed vastly in appearance, the whole of the cases were almost clinically identical. It was contended that Bazin's hydroa had no real existence as a separate disease, any more than the similar, if not identical, condition, herpes iris; that they were both accidental developments of erythema multiforme; and that the continued use, in the substantive form, of the term hydroa was not only misleading but illogical.

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[1] Archives of Dermatology, October, 1879.

[2] British Med. Journal, August 23, 1879.

Histology of Psoriasis. — Professor Neumann, of Vienna, publishes[1] the results of his new investigations into the anatomical changes in this affection. In addition to the enlargement of the papillæ and great thickening of the epidermal layers, previously determined, he discovers extensive hyperplasy of the epidermal cells surrounding the hair structures and the several ducts within the deeper layers of the corium. The hyperæmia which accompanies the excessive cell formation is essential to it, and in direct proportion to it.

The Application of Salicylic Acid in Psoriasis. — Preisman recommends[2] an alcoholic solution of this acid (1–16) for the removal of the scales in psoriasis. A medium-sized wad or swab of linen is to be dipped in this and rubbed into the affected skin several times. The scales fall rapidly off, and after a short rubbing we accomplish in a few minutes what hours of washing and bathing will scarcely do, — the exposure of the smooth red corium. To this we may then directly apply our remedies, — oil of cade, chrysophanic acid, etc. He calls this the polishing process. He speaks highly also of the use of the same solution in the treatment of chloasma and freckles, and as an antipruritic remedy. It has the additional value of possessing no unpleasant odor.

Psoriasis as a Dermatomykosis. — Professor Lang, of Innsbruck, publishes[3] a sequel to his former paper[4] upon this subject, in which he states that he has discovered the fungus which the natural relations of the disease had convinced him should exist in it. If one removes as far down as possible the scales of the eruption a very thin pellicle is reached, through which the redness of the papillæ is visible. If this be carefully peeled off there are to be seen in it under the microscope, scattered and grouped, the spores and threads of a fungus, which he proceeds to describe. These he maintains have been ordinarily overlooked in such investigations, owing to their delicacy of form and the want of color of their protoplasm. He regards the fungus as unlike those hitherto observed in the human skin, and proposes for it the name epidermidophyton. He believes that it occurs as frequently in psoriasis as the trichophyton in tinea tonsurans.

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[1] Wiener medic. Jahrbücher, Jahrg., 1879.

[2] Wiener med. Presse, 1879, No. 16.

[3] Viertelj. für Derm. und Syphilis, vi. Jahrg., 2 and 3 Heft.

[4] JOURNAL, December 5, 1878.

Treatment of Chronic Palmar Eczema. — Dr. Lieving, of London, offers[1] the following plan of treatment in this most obstinate affection. Lead ointment, and Hebra's unguentum lithargyri, are good remedies, but in all cases the hand must be rested, covered, washed little, and the ointment constantly applied. In the most obstinate cases, where the cuticle is extremely hard, brittle, thick, and cracked, ointments produce no effect, and means must be adopted to get rid of the outer cuticle, which entirely prevents any chance of cure. This is best done by the constant application, night and day, of a lotion of liquor potassæ (from two to four drachms of liquor potassæ to eight ounces of water is usually strong enough). The hand must be enveloped in rags kept constantly wet with the lotion, and covered with thin gutta percha, or something of the kind. This treatment must be continued until the cuticle is perfectly white and macerated, when it will peel and rub off readily. The process may require to be repeated until the epidermis is reduced to its natural thickness, and is thoroughly soft; the skin may then be treated with ointments and glycerine in the usual way. Lastly, chronic eczema rimosum of the hand is one of the few forms of eczema in adults that is often benefited by the internal use of arsenic.

Incomplete Vitiligo. — Dr. Atkinson, of Baltimore, reports[2] a case of remarkable decolorization of the skin of a mulatto, the loss of pigment never amounting to complete leucoderma, even in the central parts of the affected patches. Most interesting was the establishment of the restoration of normal pigmentation upon the backs of the hands under Dr. Atkinson's direct observation, an occurrence often claimed by patients but rarely confirmed by reliable observers.

Treatment of Rosacea. — M. Brault gives[3] the treatment of this affection as practiced by M. Hillairet for the last eight years. In the morning he causes the face to be washed with very warm water, or a vapor douche to be directed against the same for four or five days in succession. In the evening the face is bathed with the following solution: distilled water 250, sublimed sulphur 30, and camphorated alcohol 8, 10, 12, or 15 grammes. In some cases a little ether is added with benefit. The light deposit of sulphur and camphor is left upon the skin until morning, when it is washed off, and the following ointment is applied to soften the skin: lard 30, oxide of zinc two to three grammes. Improvement is noticeable on the fourth day in a diminution of the papules and the redness, but treatment is to be continued for two or three months, and until complete disappearance of the redness. Subsequently the skin should be washed twice a day in warm water.

(*To be concluded.*)

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[1] British Medical Journal, July 5, 1879.

[2] Archives of Dermatology, October, 1879.

[3] Annales de Dermatologie et de Syph., t. x. p. 272.

THE PUBLIC HEALTH ASSOCIATION.

FIRST DAY.

The seventh annual meeting of the American Public Health Association was opened in Nashville on November 18th. The first day's proceedings were chiefly noticeable for the address of the president, Dr. J. L. Cabell, which consisted mainly in a description of the origin and work of the National Board of Health. Among the points less familiar to our readers we find an interesting account of the work of the Havana commission, which was composed of Dr. S. E. Chaillé and Col. L. S. Hardee, C. E., of New Orleans, Dr. John Guiteras, of Philadelphia, and Surgeon G. M. Sternberg, United States army, who were instructed: —

(1.) To ascertain the actual sanitary condition of the principal ports in Cuba from which shipments are made to the United States; to determine how their sanitary condition can be made satisfactory; and especially to determine what can be done to prevent the infection of the shipping of these ports by yellow fever.

(2.) To obtain information with regard to the condition which may be supposed to determine the endemicity of yellow fever in the ports of Cuba.

(3.) Another desideratum was to increase existing knowledge as to the pathology of yellow fever.

(4.) The commission was further instructed to endeavor to find some means of recognizing the presence of the immediate cause of yellow fever other than the production of the disease by the human subject.

The first two divisions of the general subject were undertaken by a committee consisting of Dr. Chaillé and Colonel Hardee, who have collected a vast amount of valuable information from not less than forty-five places in the island, including the fifteen ports of entry, several of which, in addition to the principal ports of Havana and Matanzas, were visited in person by Dr. Chaillé. Most of this information, though highly important, is more of a commercial than of a scientific nature. It was ascertained that the disease has prevailed in Havana every year since 1761, and it is alleged that it was imported from Vera Cruz.

In relation to the shipping, Dr. Chaillé satisfied himself that the poison did not originate in it, but was brought from the shore, and avers that the facts to be given in his report will bear him out in this assertion. He cites among other evidence the fact that while yellow fever constantly prevails in the port of Cardenas the shipping is almost entirely exempt from infection, which he ascribes in part to the large size of the harbor and its excellent ventilation, and in part to the fact that the anchorage is at some distance from the shore.

Finding that the provisions of the act of June 2, 1879, for securing the best sanitary condition of vessels in the ports of Cuba destined for the United States could not be enforced effectually without the consent and aid of Cuban authorities, and that this had been withheld, he recommends an attempt to attain our object by means of an international code to be agreed upon by all the maritime powers interested in this matter. The pathological investigations were confided to Dr. George M. Sternberg, of the army, and Dr. John Guiteras, of Philadelphia.

Numerous autopsies and dissections were made, and tissues obtained directly after death were at once put up in suitable preservative liquids and brought to the United States for thorough and careful study. This investigation will be carried on under the personal supervision of Dr. J. J. Woodward, the eminent pathologist of the Army Medical Museum, who has been requested to present a special report upon the subject.

Dr. Cabell says: "The pathological histology of the blood of yellow fever patients was the subject of very earnest and patient study by Dr. Sternberg, with the result of discovering a constant lesion of the white corpuscles, which, however, with a proper reserve, he hesitates to announce as peculiar to yellow fever until he shall have had an opportunity of extending his observations to other fevers and allied affections. He is now and will for some time be engaged in making parallel observations on the blood of persons suffering from various diseases, especially febrile diseases. The lesion in question is a fatty degeneration of the white corpuscles not heretofore described, and is well exhibited in his numerous and beautifully executed micro-photographs of the blood of yellow fever patients. His careful observations with the best instruments determined no other positive fact which was new to science, but they have an important negative value in disproving the assertions of other observers. Dr. Sternberg has also photographed certain crystalline bodies in the air taken from various localities in Havana, notably in the wards of the military hospitals under and above the beds of yellow fever patients, which he is now investigating in the same manner by comparison with the forms found in the air of hospitals and other places in various parts of the United States. If it be found that these crystals have not heretofore been described, and that they are peculiar to the air of places infected with yellow fever, the observation will be an interesting acquisition to science, and may possibly lead to valuable results.

"In directing the commission to endeavor to find some means of recognizing the presence of the immediate cause of yellow fever other than the production of the disease in the human subject, the board was well aware that the problem of finding such a physiological test of the yellow fever poison, with a view to its isolation and identification in any case, and to its propagation by culture experiments if it should prove to be a *contagium vivum*, might and probably would be found to be insoluble. Nevertheless, it was considered proper to authorize and instruct the commission to institute such experiments as have resulted in valuable discoveries when applied to some other infectious diseases, notably the splenic fever, found by Koch to be caused by *bacillus anthracis*."

Among the results of the work of this commission which give promise of future benefits may be mentioned the manifest and freely acknowledged influence which it exercised upon the government and medical profession of Cuba in arousing them to a lively interest in the ætiology and prevention of yellow fever. The Cuban authorities were at once prompted to appoint an auxiliary commission to aid ours, and has since made this auxiliary commission a permanent one.

The second step taken by the board with reference to its required duties to obtain information upon all matter affecting the public health was to instruct the standing committee on State and Municipal Sanitary Legislation to collect and collate the sanitary laws of the several States, including not only the statutes, but the decisions of the courts on questions involving public hygiene. This important work has been conducted by a competent member of the bar in Boston, R. C. Lincoln, Esq., under the direction of Dr. Bowditch, chairman of the standing committee.

That which relates to the effects of disinfecting agents upon the causes of the infectious diseases, or the intimate nature of the process of disinfection, has been undertaken, under the general direction of Dr. C. F. Folsom, by Dr. W. S. Bigelow, of Boston, assisted by Dr. H. P. Bowditch, professor of physiology, and Dr. Wood, professor of chemistry, of Harvard University.

Upon the question of refrigerating ships the president remarks: "I am free to say that in my judgment the affair of the Plymouth as reported by a naval commission has not decided the question under consideration, and that, having placed on record my vote as one of the board in favor of the expediency of making the experiment by means of Professor Gamgee's plan, I am of the same opinion still, and therefore regret that untoward circumstances have prevented the application of the experimental test. I will only add, in further vindication of the propriety of the action taken by the board, that refrigeration was only a part, and but a very small part, of the appliances to be put in requisition by Professor Gamgee's plan. He proposed to provide the following means: —

"(*a.*) Deliquescent chlorides, and especially the chloride of magnesium, to remove from the air all molecular matter and moisture. The air will be then rendered ***absolutely*** and ***optically*** pure, etc.

"(*b.*) A close chamber, to be raised to any desired temperature for disinfecting purposes, to purify clothing, etc.

"(*c.*) An entirely new system of temporarily substituting for the air of a ship antiseptic gases, measured, weighed, and introduced as liquids in the most inaccessible parts, and which, passing spontaneously from the state of liquid to that of gas, will permeate everywhere, and, if necessary, be made to penetrate under pressure.

"(*d.*) Electrical apparatus for lighting and safely inspecting every part of an infected vessel. . . . .

"(*e.*) Medicated or disinfecting baths, or chamber, in which convalescent people or persons exposed to contagion may be purified before landing.

"(*f.*) Apparatus for superheating and with an entirely novel method of regulating superheated steam, if ever used in disinfecting a ship which has been stripped for the purpose, so as to maintain safe temperatures and prevent firing or other inconvenience."

Among the lessons taught by this summer's experience, he cites a few propositions as having been established on evidence more or less satisfactory: —

(1.) That in yellow fever, as in most other infectious diseases, unrestricted family intercourse is one of the most fruitful means of spreading the seeds of the infection, and by this means the disease may be carried from a focus of infection to a previously uninfected locality, where a new focus may be developed.

(2.) That when prompt notice is given of a case thus imported into a previously uninfected place proper measures energetically employed will generally suffice to arrest the spread.

(3.) That even when the outbreak has assumed the dimensions of an epidemic it is possible, by measures rather difficult of execution, and requiring not only the strong arm of the law and the use of the public funds, but also the willing consent of the population, to stamp out an existing epidemic by removing all the unacclimated portion of the population and preventing the introduction of any such material from without. Such a measure, practically impossible for large cities or towns except in a very partial degree, may be entirely feasible for villages and towns of moderate population.

(4.) That a national system of inspection and disinfection, which is not seriously obstructive to commerce and travel, may be as effectual a security against the introduction of yellow fever to our ports of entry and to inland towns as the costly and cruel plan of absolute non-intercourse. In a word, the experience of the National Board of Health during the summer is in accord with that of the quarantine authorities of New York, and justified the use of the term quarantine to signify "the administration employed to determine the presence or absence of the causes of contagious and infectious diseases in vessels arriving at a port, and the securing, if present, their removal or destruction, and does not imply detention for any specified time, nor for more time than is necessary for the above purpose."

Colonel Waring, in an interesting paper on the Drainage and Sewerage of Cities, says: "The experience of Holland, in the practice of drainage, indicates a complete relief for the natural disadvantages even of the city of New Orleans, of which the cost would be quite insignificant as compared with its benefits.

"Many of our riparian towns, dependent upon high-lying water as the outlet for their drainage, or, like Chicago and Milwaukee, delivering their foul drainage into streams whose contamination means the contamination of the town itself, may find their only practical relief by means of an artificial outlet.

"I trust that, as I am neither a Southerner nor a physician, I may be excused for attaching more importance than many of you probably do to the proper drainage and cleansing of a city, and to the proper disposal of its outflow, than to any system of quarantine. My knowledge of the history of the yellow fever epidemics in this valley is infinitely less than yours; but I feel warranted, and I take my warrant from the history of the plagues which devastated the filthy mediæval cities of Europe, and from my own knowledge of the want of cleanliness and want of drainage in the city of Memphis, in venturing the suggestion that even that fever-smitten town may be made an impossible field for the invasion of yellow fever in an epidemic form."

SECOND DAY.

In the absence of Mr. Elliot C. Clark, Dr. C. F. Folsom read, by request, that gentleman's paper on the City Scavenging of Boston.

The work devolves upon a committee of five members of the city council, chosen annually; they control the expenditure of the annual appropriation.

The superintendent of the work, however, is appointed by the Board of

Health, and approved by the mayor. The board can request that the scavenging shall be done to its satisfaction. Notwithstanding the frequent changes in the *personnel* of the board of health, city physician, superintendent, etc., the system has been found in the main to work well. The secret of this is that very few changes are made in the superintendent and those who do the work. All the men employed are fitted by long training for the performance of their duty: all the foremen have been promoted from subordinate positions; few of the laborers have been employed less than five, many have served for twenty, and some for thirty or forty years.

Scavenging includes removal of house effects, — removal of ashes and dry house dirt, cleaning of streets and street catch-basins, and cleaning of privy vaults and cess-pools; for each of these a special and separate provision is made. Offal, meaning refuse food and matter known as swill, is taken daily from hotels, restaurants, etc., and two or three times a week from dwellings, by wagons, each having a driver and helper. The wagons are built by the city, are water-tight, and covered by a wooden lid. They start out at four A. M., first visiting hotels and restaurants; after seven o'clock dwellings are visited. The driver rings at the yard gate or basement door, goes to the swill-tub, empties its contents into his buckets, replaces the tub, and leaves the house. Should no refuse be found, it is assumed that it has been improperly disposed of, and the matter is reported and investigated.

The wagon, when filled, is driven to the department depot, emptied upon a raised platform, and thoroughly washed and scrubbed before making another trip. There is no trouble in getting rid of the material. Regular customers come daily and take it away. The wagons of these parties are numbered and licensed, made water-tight, and the owners made responsible for damage from leakage and other offense. The wagons are also of known capacity, and the material is *paid for* at the rate of five to seven dollars a cord. The sales of last year amounted to about twenty-eight thousand dollars. The cost of collecting and removal was seventy-six thousand dollars. Ninety-six men and forty-five wagons were employed. In sparsely settled suburbs permission is given to private parties to use their swill for feeding hogs, but the superintendent uses his own discretion in such cases.

The larger animals which die upon the streets are removed by a contractor for the privilege of possessing the carcass. The police notify the contractor, who dispatches a cart and removes the body, takes it to an island in the harbor, where every vestige of it is utilized. The business pays well, but the process is very offensive, and the stench is sometimes carried by certain winds three miles to the city. The cost of removing ashes and house dirt last year was ninety-seven thousand dollars.

Privies and cess-pools, five or six thousand of them, are cleaned by a contractor, under the supervision of the Board of Health, at the expense of the householders. Contractors charge from six dollars to eight dollars per load of eighty cubic feet, and are required to use patent odorless excavators. The machines, air-tight, have the air pumped out of them, and suck the contents of the vault for any distance up to one hundred and twenty-five feet through a strong hose. A small charcoal furnace connected with the air-pump destroys any offensive gases. The work is done in the day-time without offense. The material is either taken in scows and dumped into the sea outside the harbor, or carted into the country and buried in pits. Not one load in ten can be sold for manure. So far from its having any manurial value, the city has to pay six dollars a load to have it carted away, when Peruvian guano is selling at fifty dollars a ton.

The sewerage of Boston is good because it is well paid for, three hundred and forty thousand dollars being spent, with a population of three hundred and sixty thousand. The appropriations are controlled by men of experience who are outside of politics.

Dr. Hugh Miller Thompson read a paper on the Disposal of the Garbage at New Orleans. He stated that it was largely used in filling vacant lots.

In a letter to the Board of Health upon the subject of a complaint that a street contractor was "burying dead dogs, etc., in the middle of Jackson and Phillips streets," the administrator of improvements (!) defends himself by saying, "It has been a long-established custom to deposit offal, etc., on vacant squares in the various districts of the city. I believe it to be an advantage to place them on some of the low streets, where, mixed with ashes, etc., they can be used in raising the grade of such streets, and rendering them passable!"

This officer was only carrying out the traditions of his office, doing as everybody else has done, in thus disposing of offal, garbage, and carcasses, and but for the epidemic of 1878, which followed, it might be going on still.

An auxiliary sanitary association was formed last year, and one of the first questions brought to its notice was the disposal of the garbage. The association finally built and presented to the city three scows for this purpose.

A paper on Municipal Sanitation followed, presented by Dr. G. Janeway.

In the afternoon session the time was largely occupied by Dr. A. L. Gihon, medical director of the United States navy, who read a paper entitled The Protection of the Innocent and Helpless Members of the Community from Venereal Diseases and their Consequences.

The general tenor of the discourse may be gathered from the following sentence: —

"The sanitarian may heartily amen the prayer of the earnest follower of the church, who would deter men and women from this as from all other wrongdoing; but while the evil exists, it is his duty to so hedge it in that it may not prove a quicksand to unwary travelers; and we, of this Public Health Association, can no longer evade the serious responsibility which devolves upon us. If it is our mission to wage war upon the dragon, disease, which assails the human race, we must spare none of its brood. We must not slay cholera and yellow fever and typhus and small-pox and the plague, and let syphilis live."

The manner of Dr. Gihon's delivery was much superior to the usual style of those who read from manuscript. The earnestness, and at times eloquence, with which he impressed his hearers testified how zealously he had given the subject his attention. As he brought forward truth after truth, ugly and unwholesome, still truth, the concentrated attention of the audience strongly evinced that he had a large share of their sympathy as well as approbation in undertaking that which most men would shrink from. The applause at the close of his address was hearty and prolonged.

Dr. Sternberg, of the United States army, expressed his approval of the paper, and was followed by Dr. Bailhache, Dr. B. F. Gibbs, and Dr. Campbell, suggesting methods by which the spread of the disease may be prevented.

Immediately on the conclusion of Dr. Gihon's address a motion was made that the president appoint a committee of three who should consider the suggestions or substance of the address, and report at the next meeting resolutions looking to the establishing of a plan for protection from venereal diseases, and also that Dr. Gihon be made chairman of the committee. Adopted unanimously.

The topic for discussion at the night session was the inquiry: May not Yellow Fever originate in the United States? An elaborate paper, entitled An Ætiological Study of the Epidemic at Savannah in 1876, by Dr. Alfred A. Woodhull, United States army, was read by Dr. Ezra M. Hunt, secretary of the State Board of Health, New Jersey.

THIRD DAY.

Dr. Billings was elected president for the ensuing year. Drs. Choppin and Kedzie were elected vice-presidents. New Orleans was selected as the place of meeting in 1880.

Dr. William H. Brewer, president of the Board of Health of Connecticut, opened the day with a paper on Rotten Wood. This was followed by a paper on Cotton as a Fomes, by Dr. T. D. Plunket, president of the Tennessee State Board of Health. His article concluded as follows: —

Much additional testimony could be adduced, if it were thought desirable, to further fortify the assumption that underlies the remarks which have been made above, namely, that cotton, from its peculiarly porous, flocculent nature, is particularly adapted to the absorption or imbibition of the infectious or propagating cause of yellow fever by readily taking up and retaining the atmospheric air of an infected locality, which we are warranted, both by direct and circumstantial evidence, in believing is invariably the vehicle or medium for the transportation of this specific virus. Now, notwithstanding the almost universal opinion among medical men that cotton should rank among the most dangerous class of fomites or materials by which the air and the infection are conveyed from infected localities where yellow fever exists, yet having exhausted all sources of information at our command bearing upon this subject, the strange and remarkable fact is brought to light that not a single case of yellow fever is recorded as having originated from contact with cotton carried from an infected place. Whether this is simply an accidental omission in the chain of evidence regarding this invidious and deadly disease, or whether it indicates an important and valuable scientific truth through which there may yet be discovered to us the fact that in unwrought cotton there is an attribute (in fibre, or volatile oil, or what not), which, like tobacco, neutralizes the virus of yellow fever, and consequently renders it incapable of conveying or communicating that disease, is a question of the greatest moment, and in its solution it becomes matter of the highest significance to the epidemiologist, as well as to commerce itself, which, should these conjectures be verified by further investigation, will be relieved of fully one half of the present embarrassments which beset its pathway in times of pestilence.

However, until this question is finally determined by the introduction of proof which is clear and convincing, the quarantine officer will continue, as he has in the past, and justifiably so, to treat cotton as a probable source of danger in communicating disease in time of epidemic; for with such officers it is a motto, If err we must, then err upon the safe side, or if doubt there be, then give the public the benefit of the doubt.

Dr. G. B. Thornton, president of the Memphis Board of Health, read an article on the Memphis Yellow Fever Epidemic of 1879, which we publish elsewhere in full.

THE EXECUTIVE COMMITTEE.

The following executive committee was elected: Dr. C. B. White, New Orleans; Dr. J. L. Cabell, Virginia; Dr. E. M. Hunt, New Jersey; Dr. J. D. Plunket, Tennessee; Dr. C. F. Folsom, Massachusetts; Dr. A. L. Gihon, United States navy.

The association then adjourned until 7.30 P. M.

The Yellow Fever Quarantine of the Future was treated in a paper submitted by Dr. Henry Frazer Campbell, of Augusta, Ga., of which the following is a synopsis: —

"What shall be our quarantine?" The present quarantine system is impracticable; too cruel for humanity to tolerate. It stupefies the honest convictions of a majority of a profession. Yellow fever is *not* contagious, that is, not communicable from individual to individual; and though the theory of personal contagions is not generally believed in by the profession, yet the same old laws remain on the statute-books.

A quarantine of vessels, and also of railroad trains, should be strictly enforced during the prevalence of yellow fever. Never let a single car that is freighted from or takes passengers in an affected port come to a healthy town. Let them be met at least twenty miles from the city by fresh cars, both for the passengers and the freight. Keep out all baggage, trunks, and clothing, but let the individual come in, *even if the fever is on him.* Do not say to the refugee, fleeing from the dread pestilence, Go back, with your wife and children, to the infected region, and breathe again the foul air laden with the seeds of death. Let the individual be thoroughly disinfected; change his clothing at quarantine ground; even wash his head with carbolic acid, if thought necessary; but let him find refuge in a place of safety. The germs in the body of the man himself are incapable of propagation.

The yellow fever subject is laboring under the dire effects of a poison, but centuries of experience have demonstrated that he can no more communicate his disease by emanations from his own body or secretions than can the subject poisoned with strychnine communicate his frightful tetanus to his friend or his nurse; as the strychnine itself is required to produce another case, so in yellow fever a fresh supply of atmospheric disease germs is required to produce the phenomena.

Dr. Campbell said that though at first he disliked the idea of a national or "central" quarantine, yet in the present state of things it seemed to be imperatively demanded. Some of the state legislatures are controlled by men who actually snarl at the idea of appropriating a mere pittance to the work of sanitation. They refuse to give over $1500 to meet the expenses of the board and to publish its reports, though they are at the same time lamenting the national quarantine and decrying it as a political measure. This alone would make it necessary that Congress should take charge of the matter.

The earliest epidemics of yellow fever occurred at the Northern ports, New York, Philadelphia, Boston, etc.; *afterward* in Savannah, Charleston, etc.; and again, after railroad communication became general, in interior towns. At present the fever does not ravage the Northern cities, though it continues its deadly work in those of the South. Why? Because at the South there has not been the knowledge and foresight to keep it out by appropriate legislation and the enforcement of a proper quarantine.

In reference to the preservation of the disease germs in closed rooms, etc., Dr. Campbell gave it as his belief that such germs do "lie over," but do not retain all of their potency. Yellow fever is an exotic. It finds a soil here where it can produce a fine crop. But the germs then "go to seed," and if not killed by intense cold, but preserved in closed rooms, closets, trunks, etc., may again give rise to a second, but milder epidemic. In the third year the seed run out; they are virtually killed, having neither potency to again produce disease, nor any reproductive power.

Dr. Bell said he had listened with great interest to the papers read and their sentiments. He sympathized deeply with the condition of Memphis, but he felt constrained to say, from his own observation, that he had never seen a city in so abominable a sanitary condition as Memphis. Its condition was revolting, and the people of that city were deeply afflicted. In the epidemic of 1878, 20,000 people had fled from the city. Of the 20,000 that had remained, 17,000 had had yellow fever, and 5150 had filled untimely graves. He believed there was not one who was left in the city who had not his money and his lot with the sick and dying. At such a time there was no opportunity for the removal or even notice of the filth of the city. He did not charge the condition of filth on the people of Memphis. But he earnestly appealed to the association to make it an individual matter to redeem Memphis.

Judge J. W. Clapp, of Memphis, said that he thought they should all be humiliated at the fact that, after two or three days' discussion, this body of physicians and sanitarians was no nearer a conclusion than at first. This pestilence had been ravaging the South for four hundred and fifty years, yet nothing could be found to stay its fell work. He represented in part the people of Memphis. He did not want it to be thought that the people of that city were worse than all others; they were not lepers, living in filth, and going through the cities of the country, hat in hand, as mendicants. Memphis was no filthier, no worse, than plenty of other cities, in sanitary matters. There was the little town of Hot Springs, that, without any filth, had been decimated with the fever in times past. Gentlemen had spoken very wisely and very strongly about Memphis with its filth and rottenness and foul condition, but they did not particularize. Memphis wanted aid; she wanted to avoid the recurrence of the plague, and he called upon this body to say what was to be done. Let the State Board of Health, the National Board, all sanitarians say what Memphis must do, and they would put their shoulders to the wheel. When they knew what it was best for them to do, they would, in God's name, try to do it.

(*To be concluded.*)

FOX'S PHOTOGRAPHIC ILLUSTRATIONS OF SKIN DISEASES.[1]

The first two parts of this work met with so great and deserved approval that its continuation has been awaited with interest by those who know the inherent difficulty of illustrating by photography the minute appearances of skin diseases in general. It was feared by these that attempts to represent certain affections not defined in their forms of efflorescence by strong contrasts in color or outline, or by marked elevation above the surrounding integument, must fail. The publication of this series shows that such fears were well founded. Most of the plates are indeed of the same excellence as those of the first two parts, and some of them, if taken upon a larger scale, might be called well-nigh perfect representations. On the other hand, both of those of eczema are poor, and that of E. universale is almost a complete failure, because photography cannot express the diffused hyperæmia, infiltration, or desquamation which form the principal tissue changes in the case chosen for illustration.

The subjects of the plates are fibroma, varicella, zoster pectoralis, Z. lumbalis, eczema universale, leucoderma, chromophytosis (tinea versicolor), favus, and eczema cruris. A clinical history of the cases accompanies the illustrations, and the descriptions of the various diseases are of the same simple and satisfactory character as in the earlier parts.

RICHET ON THE PHYSIOLOGY AND HISTOLOGY OF THE CEREBRAL CONVOLUTIONS.[2]

Charles Richet is well known to the medical public as one of the rising younger Frenchmen of scientific tastes and ability, already the author of several works of merit. The present book is ably compiled, and would in the original, so far as the translation allows us to guess, commend itself as an attractive summary of observations, many of which are still scattered through journal literature. When this much has been said, however, we think that the work has received all the praise it deserves. Such books fill no important place upon our shelves. Too condensed for the uninitiated, too brief to be of real value to advanced students, they serve for a time as imperfect dictionaries of reference for those who cannot consult the original works, or do not wish the trouble of going to them for their facts, and are then apt to be forgotten. The author gives, it is true, a certain number of interesting original observations, but not enough to save the work from being classed among the "brief summaries." The translation is distinctly poor, and in these days when so much good translating is done there is no excuse for such slipshod work. Smoothness has indeed been aimed at, and for a few pages, perhaps for a few chapters, if he is familiar with the subject, the reader goes on contentedly, and only smiles at the frequent gallicisms. It is not long, however, before he discovers that smoothness *alone* is aimed at, the seeming highway ending in blind and tortuous wood-paths, in which his way is perpetually being lost. So frequent are, furthermore, the evidences of carelessness that the conclusion forces itself upon him that it is only from want of pains on the translator's part that the author's meaning is rendered thus obscure. Such expressions as "anæmied" (for anæmic), "accrued [for increased] arterial tension," "Type Hippocampi," etc., are not gems of style, yet they might be pardoned if it were not that they are found in the company of more serious blunders, by which the sense of whole passages is marred.

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[1] *Photographic Illustrations of Skin Diseases.* By George Henry Fox, M. D. New York: E. B. Treat. Parts III. and IV.

[2] *Physiology and Histology of the Cerebral Convolutions; also, Poisons of the Intellect.* By Charles Richet, A. M., M. D., Ph. D. Translated by Edw. P. Fowler, M. D. New York: Wm. Wood & Co. Pp. 170.

The second division of the book — on Poisons of the Intellect — is a popular description of the action of the principal narcotics, such as might have been written for the *Revue des Deux Mondes.* It contains genial, telling accounts of the different forms of intoxication, but does not pretend to reflect our scientific knowledge of the subject. J. J. P.

THE SKIN AND ITS TROUBLES.[1]

THIS is one of the Health Primers, a series of popular and brief chapters on hygiene by English writers. It is prepared in the same style as the numerous existing popular treatises on the same subject, but is in no way superior to them except in point of brevity. It reflects naturally the prevailing professional opinions of the English regarding the nature and causes of skin diseases. It is in a handy form, and contains valuable information for lay readers.

BOSTON CITY HOSPITAL TRAINING SCHOOL FOR NURSES.

WE took occasion months since to call the attention of our readers to the radical changes which had taken place at the City Hospital, and pointed out many of the improvements resulting in sanitary, executive, and economic reforms. This era dates from the time the new buildings were added, and the old ones remodeled, in 1876, when the hospital doubled its capacity. The internal management at that time was greatly improved, and warranted us in calling it the "new" City Hospital. Since then the hospital has accomplished the good work we expected of it, both as to its increased quantity and quality, and the good results have fully justified the expenditure of the public money.

This improvement has been steady and progressive, as all the profession who have been familiar with its workings can fully testify, and we now desire to call the attention of those less familiar to what has become an integral part of the hospital, — its Training School for Nurses.

The medical profession of America has been keenly alive to progress in all branches and specialties. Since "good nursing is half the battle," it is certainly surprising that until the present decade no satisfactory experiment has been made to establish a school for the systematic and thorough education of nurses. The "Nurse Society," established by the Friends at Philadelphia, in

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[1] *Health Primers. The Skin and its Troubles.* New York: D. Appleton & Co. 1879.

1839, has done much to give aid and relief to the out-door poor, and the various sisterhoods in the Roman Catholic Church have done noble and self-sacrificing work in connection with their various charities; but the fact remains conspicuous, that no organized school has been ready to receive competent women desiring to learn the science of nursing. In 1873, a small but well-grounded school was commenced at the Bellevue Hospital, in New York, which has since grown to full proportions. Others were successively started, and now there are ten worthy to claim the dignity of training schools, including, in this vicinity, those at the Massachusetts General Hospital and at the New England Hospital for Women and Children.

The City Hospital Training School was opened in January, 1878, and though organized under many difficulties, it has fully entered upon its course. It would be trite to present to our readers the advantages of good and rational nursing; but they are apparent when we contrast the insecurity of trusting to a "born nurse" upon which the profession formerly depended, with the safety, comfort, and intelligent care resulting from the employment of an educated and disciplined nurse.

Dr. Gross, in his annual address before the American Medical Association, in 1869, said: —

"In public institutions in the United States ignorance among nurses prevails, superadded not infrequently to the basest moral delinquencies, as intemperance, indifference to duty, and positive disregard of the orders of the medical attendant. Male nurses are everywhere notoriously bad and incompetent. Drunkenness and male nursing are almost synonymous terms in the experience of the American physician."

The City Hospital has shared this experience. Under the new régime, by placing the sick in the care of the school, results have already been secured, good care and nursing insured, the mortality diminished, an improved moral tone and prestige won for the hospital. The hospital has accommodations for 385 patients, and its fifteen wards, excepting that for male patients with infectious diseases, are all in the hands of the Training School.

Probably no general hospital in New England has such excellent advantages for a Training School, since it is one of the largest, having all departments found in general hospitals, except that for lying-in patients. It has excellent accommodations for private as well as charity patients, has the advantage of a large and rapidly changing population, and is established and maintained as a hospital for acute diseases.

The school is modeled on the general plan of similar training schools. The pupils are put upon probation; then, if found worthy, they pledge themselves to remain two years. This service includes the male and female surgical wards, male and female medical wards, children's, ophthalmic, and uterine wards, and that for infectious diseases of women. Instruction is given by the superintendent of the school, as well as by the head-nurses, in all the general principles and details, which large experience has proved to be useful in the care of the sick. The nurses are required to study specified text-books on nursing. Lectures are given by the superintendent, and by gentlemen of the the hospital staff, whose names are distinguished in the various branches of the practice of medicine. Pupils are required to take notes on the lectures, on the recitations, and on bed-side observation, and these notes are subsequently examined. Practical work is done under the most favorable circumstances, as they are constantly serving as nurses to the sick. The individual character of each nurse is carefully studied; right tendencies and capabilities are stimulated; moral obliquities are pruned, and an *esprit de corps* is infused into all. The sum total of the two years' advantages, if honestly and thoroughly improved, entitles the pupil to a diploma, and produces a nurse competent, trustworthy, and educated for her work.

We are informed by those fully competent to judge that the class of women seeking education in the Training Schools of America is much superior to that found in the English and European schools, and it is the testimony of those entrusted with this work here, that every year a better class is applying for admission.

It seems to us incumbent upon the profession at large to assist in this work, by directing the attention of women well adapted by nature and general education to this new field of labor, which is both remunerative and honorable. We can thus only rescue the sick from the hands of the ignorant but well-meaning mischief-maker.

We congratulate our citizens that the Trustees of the City Hospital have used so available an opportunity for such a good purpose, and adopted such a liberal policy towards the school, and we can confidently hope that in their hands the school may be an additional benefit to the sick of our community, and add to the debt of gratitude the public already owes that great charity.

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THE INTERNATIONAL MEDICAL CONGRESS AT AMSTERDAM.

An exceedingly interesting letter from the London correspondent of the *Louisville Medical News* indicates that the recent Medical Congress at Amsterdam was a very brilliant success. Socially it was rendered most agreeable by the proverbial hospitality of the Dutch. Its president was the eminent Donders, a man of scientific reputation, of polish, tact, and distinction of manner; moreover, an accomplished orator. He was most ably seconded by his secretary, Dr. Guye, of Amsterdam. Of the seven international congresses thus far held, this was the most successful. It was largely attended by foreigners from all parts of the world. Sayre, of New York, and Turnbull, of Philadelphia, were the most active of the American visitors. The congress was opened by an eloquent address in French by Professor Donders, during which, in a most complimentary allusion to France, he boldly intimated that the countrymen of Claude Bernard would have been less disposed to attribute to him the foundation of general physiology if they had been able to do justice to the labors of Henle, Moleschott, Mulder, and Robert Mayer.

At a public reception, given by the burgomaster, Professor Sayre recalled the fact that New York was once called New Amsterdam. "We come, therefore," he said, "to our mother; and we recognize that for the solidity of character, the perseverance, the culture, and the honor inherent in the highest types of Dutch character, the New Amsterdam, now New York, owes an imperishable debt of gratitude to the old Amsterdam, which now welcomes representatives of America to this congress." The Dutch papers, on the following day, reproduced these words in English as well as in Dutch, "fearing lest they might lose the felicitous charm which had produced so great an effect."

Subsequently in the surgical section Sayre demonstrated his method of treating spinal curvature. Two cases were brought in, one of them wearing Taylor's apparatus. After the jackets had been applied, "not only was there a palpable increase of height and considerable rectification of the deviation of the spine, but the patients expressed great relief."

Mr. Lister was received with an enthusiasm "perhaps unprecedented;" the whole assembly rose, waved hats and handkerchiefs, and for several minutes interrupted the proceedings by shouts of "Lister!" with *vivats* in all languages. Lister delivered a brilliant address in French without notes. It was "a victorious reply" to Mr. Savory's objections to his method.

"There was one rather amusing incident which has not attracted much attention, and which is not without its significance. Mr. Lister is well known as a very hot opponent of the admission of women to the practice of medicine, and has invariably declined to take part in any proceedings to which they were admitted. On this occasion several ladies — M. D.'s of various universities — were present, and their presence by no means appeared to disconcert him, since he explained with a good deal of minuteness the proceedings by which he was enabled to demonstrate that animal fluids preserved from contact with atmospheric germs remain unaltered, without any commencement of the putrefactive process. One of these procedures consisted in carefully cleansing the *glans penis* with a solution of carbolic acid, and using it as a sort of stopper to a narrow-mouthed glass vessel rendered antiseptic by heat and other precautions, and causing the urine to be passed in this way directly into the antiseptic glass bulb, which was at once stoppered with a thick layer of cotton-wool. Under these conditions he said the urine would remain for an indefinite length of time free from putrefactive process."

Professor Virchow's address on Medical Education formed the principal attraction of the last general meeting. It was, however, rendered so dull by the manner of delivery that only their profound respect for the reader kept the audience in their seats. Somewhat later Virchow redeemed his reputation as an orator of great fire by a superb extemporized address to the students of Amsterdam on the occasion of their torch-light procession and welcome to the association at its final banquet.

Dr. Sayre gave a dinner to fifty of the leading personages of the congress. The speeches were eloquent, the dinner was good, and left upon the minds of the guests an agreeable impression of American courtesy. Dr. Warlomont, of Brussels, took this opportunity of doing justice to the untiring energy with which Dr. Seguin, of New York, year after year, has brought forward the necessity of uniformity of weights and measures, thermometrics, prescriptions, and other medical records. This warm tribute drew from Dr. Seguin a reply full of earnest feeling. Afterward, in general meeting, he asked for the formation of an international commission, for the purpose of obtaining uniformity in medical records. A committee was accordingly appointed, and comprised delegates from Amsterdam, Paris, Belgium, Florence, New York, and London.

Hueter's dermatophone and telephone were among the novelties demonstrated. The electrical polyscopes of Trouvé, of Paris, showed that it is possible to illuminate the bladder and stomach. They are especially useful in studying diseases of the posterior nares. Professor Donders gave precise rules and formulæ for the investigation of color-blindness. Bouchut, of Paris, exhibited a vegetable pepsine, obtained by Professor Wurtz and himself from the papaya of Java and South America, in which countries it has long been used for the purpose of making meat tender.

The general success of the meeting has produced a strong impression in England and France, especially the former, where the remarkable reception accorded to Professor Lister will exert a lasting influence upon the schools of London, in which city Lister has heretofore been treated by his colleagues with marked coldness. This cosmopolitan verdict, it is thought, will oblige them to give more attention to his teachings and example.

The next congress will meet in Great Britain. For this imperfect synopsis we are indebted to the correspondent already mentioned.

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MEDICAL NOTES.

— We extract the following from the *British Medical Journal:* MM. Bergeron and Montano (*Annal. d'Hygiene*) have arrived at the following conclusions on the subject of death by drowning: (1.) The presence of frothy foam, not only in the pharynx and larynx, but also in the bronchi, is the constant sign of death by submersion, whether syncope or asphyxia predominated in the mode of death, and whether the individual was free in his movements, or was thrown into the water after having been made insensible by opium or chloroform, or was partly suffocated, or was fettered in his action. This absolute constancy of the presence of foam, whatever the special condition in which the submersion occurred, is, in the opinion of the authors, the single sure uniform sign proving death by drowning. (2.) There is always a certain degree of congestion, and sometimes subpleural ecchymoses are seen; but these ecchymoses, which give the lungs a spotted or speckled look, are unlike the punctate ecchymoses of suffocation. (3.) The intensity of the hyperæmia and the extent of the ecchymoses are always in proportion to the efforts of the animal whilst struggling against submersion. It is the same also with the human subject, as has been verified in all necropsies made by the authors at the morgue in Paris during the last ten years. At a necropsy this fact shows whether or not the individual struggled long and vigorously during the act of drowning.

— During his vacation last summer, Sir Henry Thompson established himself for two months in Paris, where he and his daughter worked hard at painting from ten A. M. to five P. M., under the teaching of a distinguished Parisian artist.

— Dr. Morris Longstreth, of Philadelphia, has been chosen one of the attending physicians of the Pennsylvania Hospital, in the place of the late

Dr. Meigs. His many friends will be pleased to learn of this complimentary and well-earned appointment.

— A London correspondent of the Louisville *Medical News* writes that "Nothing could be more inhospitable or worse managed than were the congresses of last year in Paris, where guests were wholly neglected, private hospitality being apparently an unknown factor of such meetings." The international Medical Congress of this summer at Amsterdam, he says, was a brilliant success. Guests were treated with lavish hospitality.

— The distinguished dermatologist, Professor Hebra, has been made a Hofrath, on account of the great services he has rendered to science.

NEW YORK.

— Dr. Freeman J. Bumstead died in New York on November 28th, after a protracted illness. The funeral was held at St. Ignatius's Church, in West Fortieth Street, on December 2d, and the interment took place at Mount Auburn.

Dr. Bumstead was born in Boston, April 21, 1826. He was educated in the High and Latin schools, and in 1843 entered Williams College, and was graduated among the first in his class. Immediately upon leaving college he began the study of medicine, attending lectures at the Tremont Medical School. In 1847 he entered the medical department of Harvard University, going abroad, however, the following year, and spending his time in the hospitals of London and Paris. Upon returning to America in the autumn, he was appointed house-surgeon to the Massachusetts General Hospital, and in 1851 received his degree of doctor of medicine from Harvard. In 1852 Dr. Bumstead settled in New York, and began the general practice of medicine. In 1853 he was appointed surgeon to the Northwestern Dispensary, which position he filled for two years. He was appointed to the staff of surgeons to the New York Eye and Ear Infirmary, remaining connected with that institution and St. Luke's Hospital for a number of years. From 1868 to 1871 Dr. Bumstead was professor in the College of Physicians and Surgeons, resigning in 1871 to go abroad with his family, where he spent two years in extensive travel, visiting the hospitals and medical schools in Great Britain and Continental Europe. During the last years of his life he was engaged in revising and enlarging his treatise on Venereal Diseases. He completed this work, revising the last of the proof-sheets since the beginning of his illness. Last summer Williams College conferred upon him the degree of LL. D. At the time of his death he was the president of the New York County Medical Society. The early death of so valuable a member of the profession is to be most deeply deplored. The excellence of his work, especially in its last edition, is so freely accorded that, had he lived, his gratification would doubtless have been commensurate with his labors which have produced a worthy monument to an honored career.

— At the last meeting of the Academy of Medicine Dr. A. Jacobi read a paper on the Children's Department of Mount Sinai Hospital, in the course of which he related a case of catalepsy occurring in a child of three years of age, who was suffering from typhoid fever, and stated that he believed it to be the earliest age at which catalepsy had ever been known to occur. He also alluded incidentally to a case of typhoid fever in a child at Bellevue Hospital in which extensive ulcerations took place, and death was caused by perforation of the intestine, without any diarrhœa whatever. A specimen exhibiting the lesions was presented for inspection.

— At the last meeting of the Farmers' Club, held at the Cooper Institute, Dr. J. Blake White, inspector of milk of the board of health, read a paper on commercial milk. In the course of it he said that three fourths of city-born children were supported on artificial food, and that cow's milk was the only proper substitute for human milk; while he believed that the milk of several healthy cows was better than that of one cow exclusively. He alluded to the conditions affecting milch cows, such as food, exercise, water, age, season, breeding-time, the number of calves, the character of the stable, and the treatment received from the milker. The best milk, he said, came from grass-fed cows, and in winter it was important that the cows should be given food containing nitrogenous and phosphatic ingredients. In concluding his address he defended the use of the lactometer as used by the officers of the board of health, and said that it was as valuable as analysis in the detection of adulteration. On the other hand, it is contended by a recent writer that no real lactometer has ever been officially used in New York to test milk, although is is sometimes used by consumers, the instrument in use by the board of health being a common hydrometer, that simply measures specific gravity. The lactometer employed in England, France, and Germany, he says, is a graduated tube, into which milk is poured, where it is allowed to stand for a certain length of time, when the quantity of cream — the only fine test of purity that is possible except by analysis — is noted. He furthermore claims that the present so-called test of the board is not only a direct premium upon fraud, but in the case of cows giving rich milk, such as Jerseys and Alderneys, renders fraud absolutely necessary in order that the milk may pass inspection. The milk of a Jersey cow, which gives a lactometer test of .37, or "a pound of butter to six quarts," he says, shows a specific gravity that would render it liable to seizure as impure. Skim off the cream, however, and its specific gravity is raised above the standard.

— One fatal case and several other serious cases of poisoning by verdigris have just occurred in this city from the eating of lemon *meringue* pie, the verdigris having gotten into the *meringue*, as it is supposed, from the copper vessel in which it was prepared.

— On the 20th of November, Surgeon-General Wm. A. Hammond, United States army (retired), gave a very large reception in honor of Dr. P. S. Wales, the new surgeon-general of the navy. About five hundred guests, including many distinguished men of all professions, were present. Since then Commodore Nicholson has entertained Dr. Wales at the Brooklyn navy yard.

LITERARY NOTES.

— The Transactions of the Medical Society of New Jersey for 1879 contains, among other articles, one entitled the Criminal Use of Chloroform, by P. V. P. Hewlett. We make the following quotation: —

"The conclusions, then, to which we are led from the foregoing remarks, brief and desultory as they are, are, in the first place, that chloroform may possibly be administered to produce insensibility under certain favorable conditions to those who are sleeping, such conditions being a pure agent, a certain length of time to allow the administration to be conducted slowly, a knowledge and experience of its methods of administration on the part of the administrator, and a certain idiosyncrasy on the part of the system of the victim, — conditions which it is highly improbable will be combined on the occa,sion of a criminal attempt. The absence of any well-authenticated case renders the improbability almost an impossibility; sufficiently so, at least, to authorize us in treating the report of such cases with the gravest suspicion. In all such cases any inconsistency should be accepted as indicating studied deception or complicity in the crime, rather than honest delusion. Secondly, that the alleged cases of anæsthesia produced by displacing the atmosphere with chloroform vapor are not founded upon fact, but are highly imaginative. In the third place, that the production of anæsthesia at once by a handkerchief held near the mouth to waking persons without their knowledge is an utter impossibility, and that the reported cases exist only in the minds of the relaters, who usually have a motive to conceal some disreputable acts of their own."

— The Transactions of the Indiana State Medical Society contains an earnest appeal from its president, Dr. Newland, for the establishment of a board of health.

— A very interesting report of a case of Retro-Pharyngeal Sarcoma, by Dr. F. I. Knight, was read at the first annual meeting, of the American Laryngological Association, and is reprinted from the St. Louis *Medical and Surgical Journal.* The infrequency of such growths and the difficulties which attend operative interference were discussed by the association.

CHILD-BIRTH IN AMERICAN WOMEN.

Mr. Editor, — In your journal of October 2d is a communication from Dr. Nathan Allen, of Lowell, in which, among other things of similar import, he says: "The German, English, Scotch, and Irish women do not suffer the ill effects of child-bearing to the same extent as do our American women." Is this so? In one of the reports of Dr. Snow, of Providence, referring to the statistics of that city, he says something like the following: These statistics show that in all the fatal results connected with child-birth, and including puerperal fever, puerperal convulsions, and still-born children, the foreign-born women suffer much more, both actually and proportionally, than the women of American birth.

I do not quote his words, but give the idea. I am unable at this moment to refer to the report named, but have before me the City Registrar's Report of Providence for the Year 1878, in which I find the following facts, which seem to confirm the statement of Dr. Snow as given above: —

"In the twenty-three years, from 1856 to 1878 inclusive, 20,204 mothers of American birth and 23,139 of foreign birth bore children in Providence. Of the mothers of American birth 150 or 0.74 per cent., and of the mothers of foreign birth 209 or 0.90 per cent., died from the accidents connected with child-birth, including puerperal fever and puerperal convulsions. Here is a large excess of foreign mothers, actual and proportional. Nearly all the foreign mothers seem, from the report, to be Irish, English, Scotch, or German; some British American and Portuguese.

"With regard to still-born children, in 1878, there were 1273 children born of American-born mothers and 1354 born of mothers of foreign birth in Providence; of the latter, 882 were mothers born in Ireland, and 472 born in other foreign countries." Now look at the proportions: Of the 1273 children born of American-born mothers, 61 or 4.79 per cent. were still-born; of the 882 children born of Irish mothers, 64 or 7.26 per cent. were still-born; of the whole number, 1354 children born of foreign mothers, 78 or 5.76 per cent. were still-born. We see here that the foreign-born mothers, and especially the Irish mothers, have a much greater actual and proportional number of still-born children than the mothers of American birth. All the statistics given go to show that Dr. Allen is mistaken in his opinion as quoted. V.

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REPORTED MORTALITY FOR THE WEEK ENDING NOVEMBER 22, 1879.

Cities.	Population estimated for July, 1879.	Reported Deaths in each.	Deaths under Five Years.	Percentage of total Deaths from				
				The Principal "Zymotic" Diseases.	Lung Diseases	Diphtheria and Croup.	Scarlet Fever	Typhoid Fever.
New York	1,085,000	471	198	20.59	22.29	9.57	2.97	.43
Philadelphia	901,380	254	69	13.78	8.27	3.94	3.55	5.12
Brooklyn	564,400	191	73	21.99	14.66	13.09	—	.52
Chicago	—	180	83	29.44	10.56	13.89	10.00	2.78
St. Louis	—	110	29	22.73	10.00	9.09	—	2.73
Baltimore	393,796	124	40	29.84	5.65	9.68	9.68	6.45
Boston	360,000	142	47	26.06	12.68	13.38	2.82	2.11
Cincinnati	280,000	80	30	21.25	12.50	6.25	6.25	1.25
New Orleans	210,000	89	—	15.73	6.74	2.25	—	2.25
District of Columbia	170,000	—	—	—	—	—	—	—
Cleveland	160,000	57	25	31.58	5.26	15.79	15.79	—
Pittsburgh	—	52	24	32.69	5.77	13.46	5.77	3.85
Milwaukee	127,000	27	10	37.04	3.70	33.33	—	—
Providence	101,500	45	15	37.78	6.67	2.22	31.11	2.22
New Haven	60,000	18	3	16.67	5.56	16.67	—	—
Charleston	57,000	30	7	10.00	10.00	3.33	—	3.33
Nashville	27,000	11	—	27.27	—	—	—	9.09
Lowell	53,300	12	3	16.67	—	8.33	8.33	—
Worcester	52,500	15	4	6.67	6.67	—	—	—
Cambridge	50,000	13	5	15.38	—	15.38	—	—
Fall River	48,500	—	—	—	—	—	—	—
Lawrence	38,200	11	5	27.27	9.09	18.18	9.09	—
Lynn	34,000	12	2	33.33	—	16.67	—	8.33
Springfield	31,500	12	—	16.67	—	16.67	—	—
New Bedford	27,000	13	3	30.77	7.69	15.38	15.38	—
Salem	26,400	8	1	25.00	25.00	12.50	—	—
Somerville	23,350	4	—	50.00	—	25.00	—	25.00
Chelsea	20,800	6	2	—	—	—	—	—
Taunton	20,200	4	—	—	—	—	—	—
Holyoke	18,200	10	6	40.00	10.00	—	30.00	—
Gloucester	17,100	3	—	—	—	—	—	—
Newton	17,100	5	1	40.00	20.00	20.00	20.00	—
Haverhill	15,300	2	—	50.00	—	—	—	50.00
Newburyport	13,500	4	1	—	—	—	—	—
Pittsfield	12,650	2	1	—	—	—	—	—
Fitchburg	12,500	3	2	66.67	—	—	—	—
Milford	9,800	4	1	50.00	—	—	—	—

Two thousand and twenty-four deaths were reported: principal "zymotic" diseases (small-pox, measles, diphtheria and croup, diarrhœal diseases, whooping-cough, erysipelas, and fevers) 461, consumption 317, lung diseases 246, diphtheria and croup 197, scarlet fever 96, typhoid fever 46, diarrhœal diseases 44, malarial fevers 24, cerebro-spinal meningitis 14, whooping-cough 14, erysipelas 14, measles 12, small-pox none. (In addition, District of Columbia reports 13 deaths from consumption, 12 from lung diseases, three from diphtheria and croup, two from malarial fevers, one each from scarlet fever and typhoid fever, — total deaths not given. From *scarlet fever*, Chicago 18, Providence and New York 14, Baltimore 12, Philadelphia and Cleveland nine, Cincinnati five, Boston four, Pittsburgh and Holyoke three, New Bedford two, Lowell, Lawrence, and Newton one. From *typhoid fever*, Philadelphia 13, Baltimore eight, Chicago five, St. Louis and Boston three, New York, New Orleans, and Pittsburgh two, Brooklyn, Cincinnati, Providence, Charleston, Nashville, Lynn, Somerville, and Haverhill one. From *malarial fevers*, New York seven, St. Louis five, Brooklyn and New Orleans three, Cincinnati two, Chicago, Baltimore, Boston, and Milwaukee one. From *cerebro-spinal meningitis*, New York three, St. Louis, Boston, Pittsburgh, Nashville, and Milford two, Fitchburg one. From *whooping-cough*, New York four, Boston three, Brooklyn and New Orleans two, St. Louis, Baltimore, and Lynn one. From *erysipelas*, New York four, Philadelphia, Baltimore, and Boston two, Brooklyn, Chicago, St. Louis, and Pittsburgh one. From *measles*, New York eight, Chicago, three, Philadelphia one.

The meteorological record for the week in Boston was as follows: —

Date.	Barometer.	Thermometer.			Relative Humidity.				Direction of Wind.			Velocity of Wind.			State of Weather.[1]			Rainfall.	
	Mean.	Mean.	Maximum.	Minimum.	7 A. M.	2 P. M.	9 P. M.	Mean.	7 A. M.	2 P. M.	9 P. M.	7 A. M.	2 P. M.	9 P. M.	7 A. M.	2 P. M.	9 P. M.	Duration.	Amount in Inches.
Nov. 16	29.909	50	58	44	78	52	54	55	SW	W	W	9	20	14	C	F	C	0.50	.02
" 17	30.245	46	52	39	74	41	61	59	W	NW	NW	10	10	4	C	F	C	—	—
" 18	29.948	35	46	28	92	100	100	97	NE	NE	N	10	18	24	R	R	S	18.00	.90
" 19	29.944	33	37	25	76	70	61	69	NW	W	S	10	4	9	CFg	O	O	1.30	.01
" 20	29.306	29	41	20	100	100	87	96	E	NW	W	12	12	20	R	S	F	15.05	.29
" 21	29.954	13	23	10	61	53	40	51	NW	W	W	34	28	8	F	C	C	1.40	.01
" 22	30.305	24	33	9	80	48	63	64	W	S	S	6	6	9	C	C	F	—	—
Week.	29.944	33	41	25				70		W		2265 miles						37.08	1.23

[1] O., cloudy; C., clear; F., fair; G., fog; H., hazy; S., snow; R., rain; T., threatening.

For the week ending November 1st, in 149 German cities and towns, with an estimated population of 7,525,566, the death-rate was 22.2 against 23.7 of last week. Three thousand two hundred and fifteen deaths were reported: consumption 421, acute diseases of the respiratory organs 268, diarrhœal diseases 268, diphtheria and croup 143, typhoid fever 69, whooping-cough 74, scarlet fever 71, measles 28, puerperal fever 11, small-pox one. The death-rates ranged from 9.2 to 42.3.

For the week ending November 8th, in the 20 English cities, with an estimated population of 7,383,999, the death-rate was 22.1 against 21.9 of the previous week. Three thousand one hundred and twenty-nine deaths were reported: scarlet fever 192, measles 105, fever 60, diarrhœa 53, whooping-cough 51, diphtheria 25, small-pox three (London). The death-rates ranged from 14.8 to 30.1.

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OFFICIAL LIST OF CHANGES OF STATIONS AND DUTIES OF OFFICERS OF THE MEDICAL DEPARTMENT U. S. ARMY, FROM NOVEMBER 22, 1879, TO NOVEMBER 28, 1879.

Keeney, C. C., lieutenant-colonel and surgeon. Relieved from duty at the Presidio of San Francisco, and assigned to duty in San Francisco, California. S. O. 142, Division of the Pacific and Department of California, November 15, 1879.

Kimball, J. P., captain and assistant surgeon. To return with the command of Colonel Merritt, Fifth Cavalry, to Rawlins, Wyoming Territory. S. O. 107, Department of the Platte, November 20, 1879.

Hall, J. D., captain and assistant surgeon. His sick leave, granted him from headquarters Department of Texas, extended one month on surgeon's certificate of disability, with permission to leave the Department of Texas. S. O. 266, A. G. O., November 25, 1879.

LIST OF CHANGES IN THE MEDICAL DEPARTMENT OF THE NAVY DURING THE WEEK ENDING NOVEMBER 28, 1879.

Medical Inspector A. C. Gorgas, Passed Assistant Surgeon George P. Bradley, and Assistant Surgeon N. H. Drake detached from the U. S. S. Hartford and waiting orders.

Passed Assistant Surgeon J. H. Hall detached from the U. S. S. Marion and ordered to coast survey duty.

Assistant Surgeon C. W. Rush detached from the receiving ship at New York and ordered to the U. S. S. Marion.

Assistant Surgeon E. H. Marstelier ordered to the receiving ship at New York.

Passed Assistant Surgeon J. H. Gaines detached from the Bureau of Medicine and Surgery and ordered to the U. S. S. Tennessee.

Passed Assistant Surgeon W. A. McClurg detached from the Naval Hospital, Washington, D. C., and ordered to the U. S. S. Tennessee.

Assistant Surgeon A. C. H. Russell detached from the Naval Hospital, Mare Island, and ordered to the U. S. S. Pensacola.

Assistant Surgeon Frank C. Dale detached from the U. S. S. Pensacola and ordered home and wait orders.

Books and Pamphlets Received. — Report of the Adams County Medical Society. By J. W. C. O'Neal, M. D. (From the Transactions of the Medical Society of Pennsylvania.) Philadelphia. 1879.

Diphtheria. By John H. Gilman, M. D., of Lowell. A Paper read before the Massachusetts Medical Society, June 12, 1879.

American Health Primers. The Mouth and Teeth. By J. W. White, M. D., D. D. S., Editor of the Dental Cosmos. Philadelphia: Lindsay and Blakiston. 1879. (A. Williams & Co.)

Wood's Library of Standard Medical Authors. Infant Feeding and its Influence on Life, or the Causes and Prevention of Infant Mortality. By C. H. F. Routh, M. D., M. R. C. P. L., Fellow of University College, London, etc. Third Edition. New York: William Wood & Co. 1879.

THE BOSTON MEDICAL AND SURGICAL JOURNAL.

VOL. CI. — THURSDAY, DECEMBER 11, 1879. — NO. 24.

COMPOUND COMMINUTED FRACTURES OF BOTH LEGS; PRIMARY AMPUTATION OF THE RIGHT LEG; SECONDARY AMPUTATION OF THE LEFT LEG ON THE FORTY-EIGHTH DAY; DEATH.

BY CHARLES. R. GREENLEAF, M. D., SURGEON UNITED STATES ARMY.

John K., aged forty-three years, Dane, by occupation a "freighter," was brought to the Post Hospital on the afternoon of August 18, 1879, with compound comminuted fractures of both legs, having been run over by his wagons, loaded with over eight thousand pounds of freight. The accident occurred about nine o'clock in the morning, at a point twenty-three miles distant, whence he was brought, over a rough road, in a common spring wagon.

He was placed as soon as possible under the full anæsthetic influence of ether. The bones of the right leg and ankle were crushed into small fragments from the middle of the leg to the arch of the foot; the ankle-joint was utterly disorganized, and through a large rent on its inner surface the lower articular end of the tibia and the detached head of the astragalus protruded; the soft parts were reduced to a pulp. The bones of the left leg were also comminuted, their fractured ends penetrating the skin through two small openings.

Primary amputation of the right leg, being imperatively necessary, was at once performed at the upper third by the circular method, Esmarch's bandage being applied. Hæmorrhage during the operation was trifling; the two main arteries and one muscular branch were tied; capillary hæmorrhage, after removing the rubber cord, was quickly arrested by the application of *hot* water, at a temperature of 110° or 115° F. The stump was dressed antiseptically by Weir's apparatus, the ligatures and sutures being also carbolized.

As the patient was greatly prostrated by shock and hæmorrhage prior to the operation, it was deemed unsafe to make an amputation of the other leg, and an attempt at reduction of its fractures was made, but could be only partially accomplished. It was placed in a fracture-box, and slung to a frame-work placed over the bed, counter-extension being made by a weight attached to the leg by adhesive plaster; the rents in the soft parts were closed by an antiseptic dressing.

On the fifth day erysipelas attacked the left leg, quickly extending over its entire surface, and invading the thigh as high up as the buttocks. The patient was placed on quinine and iron in full doses, with beef tea, and large doses of brandy and morphia were given hypodermically; the local dressing consisted of carbolized glycerine. On the seventh day sloughing of the tissue on the back of the leg commenced; on the eighth day a large abscess was evacuated just above the popliteal space, and on the tenth day another, four inches higher up, was opened; quinine was pushed to its full extent; on the twelfth day the erysipelas seemed to be under control, the temperature falling to 99.4° from 104° F., and the blush fading.

The amputated stump was dressed in strict accordance with the antiseptic method; nothing approached it unless previously disinfected with carbolic acid, the protective silk, antiseptic and hygroscopic gauze, and salicylated jute being used, all under the carbolized spray, and the hands of the surgeon and attendants, the instruments, sponges, etc., were carefully washed in carbolized water before work was commenced. No suppuration was observed until the tenth day, when a slight, thin discharge came away, and the edges of the flaps had commenced to slough, but there was no evidence of erysipelas. On the nineteenth day the sloughing had ceased; considerable tissue had been destroyed, and a small portion of the ends of the tibia and fibula was exposed; the wound was covered, however, by healthy granulations.

On the seventeenth day diarrhœa set in; temperature 102° F. It was controlled by astringents, and disappeared on the nineteenth day.

On the twenty-sixth day the left leg was again attacked with erysipelas, which spread rapidly, invading the entire leg, and extending on that side of the trunk to the axilla. The large doses of quinine and iron were resumed, and the limb was treated with *hot* water (after Hamilton's method) for three days; on account of the difficulty in keeping the patient's body and the bedding dry, this was abandoned for a cotton dressing covered with oiled silk. On the thirty-third day the erysipelas had subsided.

The patient was now very much prostrated, the leg and thigh were enormously swollen, and discharging quantities of a thin, watery fluid mixed with broken-down cellular tissue. No effort at union of the fractures had been made, and it was evident that pus had found its way into the ankle-joint. Stimulants and nourishment were pushed as far as possible, with a view of bringing the general condition to a point at which an amputation could with some degree of safety be performed, and on the forty-eighth day, after consultation with Assistant Surgeon Merrill, United States army, it was decided that this operation presented the only chance for life. Complete anæsthesia was produced by sulphuric ether; the limb was elevated a few moments to rid it of surplus blood;

a common bandage was put very tightly on the foot and leg as far up as the seat of fracture; from that point the rubber bandage was applied. The leg was so much swollen and the tissues were so indurated that, as a matter of precaution, a screw tourniquet was placed over the femoral artery.

After removing the rubber bandage, and as the primary incision was about to be made, the sloughing tissue on the back of the leg gave way, accompanied by a gush of dark blood; the screw tourniquet was at once tightened, but without much effect in restraining the hæmorrhage. The operation was commenced as speedily as possible, but before the flaps could be completed the patient was in a dying condition. The operation was immediately suspended, and every effort made to revive him, without avail. He continued to breathe a trifle over fifteen minutes, and then died, the cause of death being, in my opinion, shock.

The case presents several interesting points: First, the amputated stump, dressed antiseptically, although lying within a few inches of its fellow limb, highly erysipelatous, did not show the least evidence of the disease; the sloughing of the flaps may, I think, fairly be attributed to the depressing influence of the attack of erysipelas, or to a syphilitic taint, of which the patient was the subject. During the second attack of erysipelas, granulation of the stump went on without any apparent hindrance, the general color of the stump being a trifle darker than usual.

Second. The value of *hot* water in controlling the capillary hæmorrhage following removal of Esmarch's bandage was thoroughly demonstrated.

Third. The two attacks of erysipelas ran a regular course, apparently uninfluenced by medication, save in the matter of the reduction of temperature by large doses of quinine, thirty to forty grains, of which the effect was well marked.

FORT SHAW, MONTANA TERRITORY, *October* 12, 1879.

SKIN GRAFTING.[1]

BY W. SYMINGTON BROWN, M. D., STONEHAM, MASS.

SINCE M. Reverdin, at La Charité, Paris, and Mr. Pollock, at St. George's Hospital, London, — both in 1870, — first directed attention to the subject of skin grafting, surgeons do not seem to have appreciated the great importance of the method. Dr. Frank H. Hamilton, several years before, employed a somewhat similar method successfully, that is to say, he transplanted pieces of fresh skin, which took root, and healed ulcers which for a long time had remained stationary. But M. Reverdin's method is simpler and easier of application than any other, and deserves a more extended trial than has yet been given to it.

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[1] Read before the Middlesex East District Society, October 29, 1879.

A certain cardinal principle underlies the operation of skin grafting. It is this: *there is a limit to the power of reproduction.* My attention was first forcibly called to this principle in the year 1842, while attending a clinic held by the late Professor Laurie at the Royal Infirmary, Glasgow. A young woman, employed in a cotton factory, had a large strip of skin torn from her arm. I cannot say how much was lost, but a short examination satisfied Professor Laurie that the arm would require to be amputated. Her friends were horrified, and refused their consent. During a whole year fruitless attempts were made by different surgeons to effect a cure, and she finally returned to the Royal Infirmary, emaciated by the constant drain, and submitted to amputation.

Case I. I was called, October 9, 1872, to see a little boy named O'Reilly, three years of age, who had been badly burned while playing with matches amid a pile of dry leaves in the woods. He was so severely burned on the face, neck, arms, and abdomen that his life was despaired of. The parts were dressed with fine cotton batting soaked in carbolized oil every day for several months. Finally it occurred to me to try the new process of skin grafting, and the trial was attended with marked improvement, more especially on the face, which, I believe, was saved from distortion by this means.

Case II. Miss M. N., a young lady, sixteen years of age, met with the entire loss of her scalp on the morning of September 6, 1872. While working at a bench in a shoe shop, above which a belt revolved, her long hair was caught up by electrical attraction, and the scalp, skin of the forehead, and a part of the right cheek were entirely torn off in an instant. The scalp was replaced by one of the workmen, and stitches were inserted by Dr. Cowdrey and myself, after which she was removed the same day to the Massachusetts General Hospital, where she remained for eight weeks under the care of Dr. J. Collins Warren.

There was but slight hæmorrhage at the time of the accident, and not much constitutional disturbance, considering the extent of the injury. During the first three weeks the scalp gradually shriveled, and was cut away piece by piece. Dr. Warren made several attempts at grafting during her eight weeks' stay in the hospital, but on account of the free purulent discharge they all failed. She was carried home to Stoneham October 31, 1872, and came under my care at that time. My first efforts were directed to checking the discharge, and for this purpose a weak solution of carbolic acid (one drachm of the crystals and one ounce of glycerine to the gallon of tepid water) was freely used. Much benefit was derived from a solution of bromine in potassium bromide (one drachm bromine in four ounces saturated solution potassium bromide), which was applied with a camel's-hair pencil every alternate day to the worst parts of the head and cheek. A weak solution of borax was also used as an eye-wash.

Miss N. returned to the hospital March 9, 1873, but remained three days only, as the hospital atmosphere did not agree with her. She returned to Stoneham.

I commenced to graft May 26, 1873, and with a few intermissions continued the process every Sunday for three years. Dr. Winthrop F. Stevens shared the labor with me during the first year, and Dr. Warren, Dr. Jeffries, and the late Dr. Wm. F. Stevens saw the case in consultation. During these three years over thirteen hundred grafts were taken from one hundred and eighty different persons, and, as each graft was cut in two, fully twenty-six hundred pieces of skin were applied. The larger portion of the contributors were young people, many of them mere children. The pieces averaged the size of an oat-seed.

Since the original accident Miss N. has had three severe attacks of what appeared to be pyæmia, namely, in March and November, 1873, and in June, 1875. The last attack was accompanied by a petechial eruption all over the body, and partial suppression of urine. After the second and third of these attacks, a large portion of the newly formed surface sloughed, but, on recovery, cicatrization commenced in the line of the former grafts. An attempt was also made, after one of these attacks, to promote healing by means of Dr. Hammond's miniature galvanic battery, which consists of a thin plate of pure silver soldered with a silver wire to a thin piece of zinc. The silver plate is applied to the raw surface, and the zinc, with a piece of moist chamois leather underneath, to sound skin near by. It was not worn long enough to test it sufficiently.

The eyes were not injured, and have remained sound till the present time. The eyelids were torn, and the constant discharge of pus resulted in prolonged photophobia. In October, 1876, through the kindness of Dr. B. Joy Jeffries, she was admitted to the Massachusetts Charitable Eye and Ear Infirmary, and remained there two weeks. The surgeons of that institution decided that it was not advisable at that time to perform any plastic operation on the eyelids. But she entered the Massachusetts General Hospital for the third time September 22, 1877, and was operated on by Dr. Warren on the following Wednesday. A piece of skin, about one by two and a half inches, was taken from her thigh; the mucous membrane was carefully dissected down and stitched to the eyelid, and the transplanted skin attached by carbolized silk sutures. The operation, unfortunately, proved a failure, and no other attempt has been made to remedy the deformity.

One additional circumstance may be noted. After the scalp began to heal, the downy hairs (lanugo) on the back of the neck took on an extraordinary growth, and the hair is now fourteen inches long, forming graceful curls. At present (October, 1879) the patient enjoys good health, is able to do light house-work, takes music lessons, and occasionally sings in public. The entire head, with the exception of a small space over the left eye, is covered with sound skin. The eyelids remain in much the same condition as in 1872.

One question occurs to almost every one who has seen the case: Would this large, raw surface, without a single *point d'appui*, ever have healed without grafting? I think not. An old and very skillful physician, who saw the patient, asked me, "What is to hinder it from healing in course of time?" I answered his question after the Scottish method by asking him another question: "What is to hinder you from lifting four hundred pounds?" There is a limit to the power of reproduction, as to everything else. The following case furnishes an apt illustration: Miss M. A. M., twenty years of age, met with a similar accident in Watertown, Mass., November 30, 1872, while at work in a laundry. She went into the cellar, and crept underneath the revolving shaft to get a match. Her hair was done up in a net at the time, but the greater portion of the scalp, including the left ear, was torn off instantly. Dr. Morse attended, and sewed the scalp on. Dr. Hosmer, the family physician, took charge of the case that same evening, and attended to it until June, 1877. He commenced to graft four weeks after the accident, and continued, with intervals, for nearly a year. When I saw her in June, 1877, a surface nine and one half by six inches still remained raw; she had entirely lost the sight of the left eye, and there was eversion of the upper eyelids. She suffered from an attack of erysipelas during 1874; otherwise her health when I saw her, was good; she slept well, and had a fair appetite; but, so far as I have been able to learn, the large surface still remains unhealed, and no attempt has been made to graft since 1874.

CASE III. H. L., thirty-two years of age, Winchester, Mass., was attacked with perityphlitis September 10, 1877, which resulted in gangrene of the scrotum and groin, leaving a raw surface as large as the outspread hand and wrist. The muscles were freely exposed, and a considerable part of the aponeurosis of the external oblique became sphacelated.

I commenced to apply grafts October 14th, and continued to do so weekly for a period of about four months. No record of the exact number was kept, but there must have been several hundred. Hammond's miniature battery was afterwards used in this case with advantage. The patient is now (October, 1879) well and hearty, able to do a hard day's work, and has been for more than a year.

CASE IV. J. M., Woburn, a little boy, three years of age, put one foot into a kettle of boiling water, where he allowed it to remain until his mother lifted him out. The case had been under the care of several physicians before I saw it. After a lapse of two months, during which it was simply dressed with vaseline and kept absolutely at rest, I applied fully one hundred grafts in one day, and in less than two weeks it was entirely healed.

The size of the grafts used is about one eighth by one sixteenth of an inch. The skin of the donor is raised with a pair of fine forceps with flat ends, and cut off with sharp scissors. Curved scissors are preferable, but plain ones, with the rivet near the distal extremity, answer the purpose very well. A layer of tissue gutta percha is laid over the grafts at the close of the sitting.

RECENT PROGRESS IN DERMATOLOGY.[1]

BY JAMES C. WHITE, M. D.

Treatment of Rosacea by Electrolysis. — Dr. Hardaway, of St. Louis, presented at the late meeting of the American Dermatological Association the results of his experiments with this method, which he desires should be looked upon as a provisional report[2] until the number of operations has increased. The obliteration of the hypertrophied vessels requires but one sitting, and leaves no scar. A number thirteen cambric needle is inserted in any convenient electrode handle, which is attached to the negative pole of a galvanic battery, while a sponge electrode is connected with the positive pole. The needle is then inserted sufficiently deep to enter the dilated vessel. So soon as this has been accomplished the patient approaches the sponge electrode (positive) to the palm of his hand, and after the electrolytic action has been properly developed he releases the same, after which the operator withdraws the needle. The number of elements employed will depend principally upon the susceptibility of the patient, and also upon the condition of the battery; but where the machine is freshly charged, six or eight elements will generally suffice. A few seconds after the introduction of the needle the point of puncture becomes quite blanched, as does also a small area of surrounding tissue; then the column of blood is seen to run up the vessel and empty itself into the collateral branches, apparently forced up by the gas arising from the decomposition of that fluid. If the vessel is a long one, and a single puncture is not sufficient, several must be made along its course. The needle may be inserted perpendicularly or along its course.

Nodose Condition of the Hair. — Dr. W. G. Smith, of Dublin, showed[3] at the late meeting of the British Medical Association specimens of a remarkable affection of the hair. A healthy girl had sought his advice concerning an alopecia which had been progressive for four years. The hair was uniformly thinned, and presented a singular appearance. Nearly all the shorter hairs exhibited a regular succession of swellings along the shaft, each nodosity corresponding on an average to one millimetre of length of hair. No other beaded hair occurred, except a few upon the pubes. Brown pigment was deposited outside the axis in streaks, much more abundantly in the nodes; so that each hair appeared to the eye as if checked alternately brown and white. They presented no evidence of fungoid growth. From trichorexis nodosa they differed in several particulars, as stated by Dr. Smith. There was little tendency to partial fracture of the cuticle, or brush-like splitting of the cortex. The nodose hairs grew in multitudes on the scalp. When a hair was broken the fracture was usually clean, not fibrous, and occurred through a constriction, never through a node. The nodes were opaque, and constituted the darkest parts of the hair; and they were very numerous, and succeeded each other in regular order, like beads on a necklace.

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[1] Concluded from page 805.

[2] Archives of Dermatology, October, 1879.

[3] British Med. Journal, August 23, 1879.

[The reporter, through the kindness of Dr. Duhring, has had opportunity of examining some of the hairs from this case, and can corroborate not only the unique character of the appearances above described, but the dissimilarity to those of trichorexis barbæ.]

Treatment of Nœvus by Scarification. — Mr. Morris, of London,[1] presented to the British Medical Association the notes of three cases treated by scarification, after the manner of Mr. Squire, during long periods, all of which were unsuccessful. In one case the operation had been performed one hundred and thirty times, but with no improvement; in fact, rather the reverse, in consequence of the formation of a keloid growth. In his opinion, the minute scratches healed so rapidly by first intention that the continuity of the vessels was not destroyed, and so no alteration in color could be produced.

Dr. McCall Anderson, presiding over the section of dermatology, stated that he had been struck by the reported successes in Mr. Squire's paper, and after a trial of his method had come to the same conclusion as Mr. Morris, namely, that the method was valueless in the treatment of port-wine mark.

[Similar conclusions were stated at the recent meeting of the American Dermatological Association.]

Nœvus Vascularis. — According to the observation of Laboulbène,[2] a solution of cantharidin 0.10 in 10.0 chloroform when applied to the skin produces within half an hour a lively congestion, and in the course of five or six hours a blister, which continues to increase in size, but collapses on the following day. The process is attended by a slight burning, but no real pain. Applied to nævi materni, he found that it caused their destruction, and left, owing to its superficial action, only a very slight cicatrix.

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[1] British Med. Journal, August 23, 1879.

[2] Viertelj. für Derm. und Syphilis, vi. Jahrg., page 402.

Iodide of Starch in Lupus Erythematosus. — Dr. McCall Anderson, after remarking at the dermatological section of the British Medical Association on the obstinate way in which this affection resists internal remedies, stated [1] that he had been first induced to try the administration of iodide of starch in consequence of its succeeding in the case of another physician after all ordinary remedies had failed, and that he now regarded it as a valuable addition to our means of combating this most obstinate affection. The formula for its preparation is iodi gr. xxiv., amyli ℥i. Triturate the iodine with a little water, gradually adding the starch, and continuing the trituration till the compound assumes a uniform blue color, so deep as to approach to black. The iodide should be dried with a heat so gentle as to run no risk of driving off the iodine, and it ought to be kept in a well-stoppered bottle. The dose is a heaped-up teaspoonful in a draught of water or water gruel three times daily, but it may be increased to an ounce safely in some cases. In using it care must be taken, first, that the case is really lupus erythematosus, and not lupus vulgaris; and, second, that the medicine is freshly prepared in accordance with the above directions.

Treatment of Lupus. — In a second contribution [2] to the therapeutics of this disease, Dr. Piffard [3] gives the diary of eighteen cases under treatment. In this series he experimented with gold, bromide of gold, chloride of gold and sodium, arsenious acid, bromide of arsenic, phosphorus, hydrocotyle asiatica, silicic acid, silicate of calcium, and arseniate of calcium, given internally. Under the use of some of these the patient's health was benefited and the appearance of the lesions improved. His conclusions are that when excision is impracticable, scraping followed by the actual cautery is the least painful of the radical operations that have been proposed, and cicatrization is most rapid. The resulting cicatrix is smooth and less disfiguring than that which follows spontaneous involution or the potential caustics. The success of the operation depends upon the thoroughness with which it is performed. If a relapse occurs *in situ*, it may be expected within three months at the latest.

Salicylic Acid in Lupus. — Ameglio reports [4] the results of the use of a solution of this substance in glycerine (6–20) in a case of lupus of the face of five years' standing after all remedies had been tried in vain.

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[1] British Med. Journal, August 1879.

[2] JOURNAL, December 13, 1877.

[3] The Medical Record, April 5, 1879.

[4] Memorabilien, 3 Heft, 1879.

It was painted upon the parts three times daily. After a few days the bleeding vegetations disappeared, the ulcerating surfaces became dry and assumed a favorable appearance, and perfect cicatrization ensued in a month.

Leprosy in Louisiana. — Dr. Salomon, of New Orleans, having been appointed by the State Medical Society to make a report upon the existence of this disease in Louisiana, contributed [1] the results of his investigations to the last meeting of the society. He finds that six cases have occurred in Vermillion Parish since 1866. The first case was an old lady whose father came from the south of France. She was the mother of six children. Of these, three have become lepers between the years 1871 and 1872. The fifth case showed itself in 1876 in a nephew of the same woman, and the sixth in a young woman who was in constant attendance upon her. Seven cases have also been discovered in New Orleans, all, with one exception, of the tubercular variety.

In a letter received by the reporter from Dr. Salomon since the publication of the above, he writes that he has since learned of several additional cases in other parishes of the State, making in all twenty-one, of which five are negroes, the remainder being whites of various extraction. Some of them were of the anæsthetic type. He had heard of no cases among the Chinese within the State.

Leprosy in the Sandwich Islands. — Dr. G. W. Woods, U. S. N., contributes to the last volume [2] of the Hygienic and Medical Reports of the Navy Department a highly valuable paper upon the history and present condition of leprosy in the Hawaiian Islands, from which we collate the following points of interest: The date of its introduction coinciding with the beginning of Coolie immigration, the subsequent propagation was remarkably rapid, and its spread has been attributed by resident physicians to many circumstances combined: Firstly, a wide-spread syphilitic or scrofulous cachexia, or a debilitated constitution, rendering the race susceptible to the new disease. Secondly, promiscuous and compulsory vaccination during several epidemics of small-pox, in which it was impossible to obtain vaccine virus of desired purity. Thirdly, the notoriously licentious habits of the common people. Fourthly, the absence of all fear or disgust of the disease, which affords no bar to ordinary association, cohabitation, or marriage. Fifthly, the social habits of the people, namely, large families crowded together in small huts, and sharing the same mats and blankets; the eating o *poi* with their fingers, all seated around and helping themselves from the same calabash; the drinking of *ava* in the Hawaiian manner; passing the pipe from mouth to mouth, — a common custom and evidence of hospitality. Sixthly, hereditary transmission. In respect to the influence of inheritance in its dissemination, it is stated that the female lepers are generally barren, only two births being reported during the first five years after the establishment of the leper settlement. Where both parents are lepers the almost inevitable result is sterility. Dr. Woods accepts as satisfactorily demonstrated the universal belief of the local profession in the contagiousness or inoculability of the disease. It requires, he believes; an absolute inoculation of pus or blood into the circulation through open vessels or abraded surfaces, with a cachectic condition favoring the action of the virus. The first recognized case was that of Ahia, who lived a short distance from Honolulu, and eight years later his neighbors and friends to a large number were found to be affected; and in other instances its dissemination in remote districts has been traced to individual sources of contagion. Among the lepers on Molokai the great majority point to some association with lepers as the source of their infection, saying in reply to questions, "I married a leper woman;" "My nurse was a leper;" "I lived in the house with a brother-in-law who was a leper;" "I was a prostitute, and cohabited with lepers;" "I lived five months in the house with a leper;" "I used to visit, and both eat and smoke with, lepers." In cases of immunity from contraction of leprosy in the relation of marriage or prolonged cohabitation, it is assumed that the conditions of an abraded surface and the contact of pus or blood with an absorbing surface have never taken place. Dr. Trousseau thinks that the material of contagion is pus or blood transferred through the customs above mentioned, and states that he has seen many families in which every member had become affected with syphilis through a single case of onychia, the infection being traceable to the calabash of *poi.* The description given of the secluded leper settlement on Molokai is exceedingly interesting. The lepers are cared for in the most humane manner, and are comparatively comfortable and happy in spite of their horrible physical condition. The island is a perfect natural sanitarium. It is under the control of an efficient board of health, and has for a resident governor a talented lawyer who voluntarily exiled himself thither on discovering himself to be a leper. He declares that all who doubt that the disease is contagious are dreamers, and that any one who would be willing to return to his home and spread the foul contagion among his friends and countrymen is worse than a traitor to the Hawaiian nation.

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[1] Proceedings of the Louisiana State Medical Society, 1879.

[2] Volume iv., 1879.

Peruvian Balsam in Pruritus — Dr. Auerbach, of Berlin, reports[1] two cases of chronic pruritus in which great and immediate relief was obtained by the external use of this substance. In one of them the patient, an old man, had suffered constantly for four years, and had consulted numerous physicians in Germany, France, and Italy without permanent benefit. After the inunction of the balsam for a few nights the itching disappeared entirely, and had not returned after several weeks. Dr. Auerbach was led to make use of it on account of its soothing action upon the skin in scabies, for which it was originally introduced into cutaneous therapeutics. He uses it unmixed with lard or other diluents.

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[1] Deutsche medizinische Wochenschrift, August 23, 1879.

Tinea Imbricata. — Dr. Patrick Manson publishes [1] a description of a parasitic affection of the skin which he regards as distinct from ordinary ringworm (tinea trichophytina), both in its clinical features and in the characters of the epiphytic growth. It occurs chiefly in the Straits of Malacca and islands of the Malay Archipelago. The disease will in time spread over the whole surface of the body, avoiding generally the parts covered with hair. The appearances are thus described: The surface of the epidermis is arranged in a series of wavy lines, lying parallel to each other, and having a more or less concentric arrangement in relation to an imaginary point, resembling the ringed appearance in a cross-cut log of wood. This effect is produced by an undermining of epidermis, giving rise to long flakes, about an eighth of an inch in breadth, the free edge of the scale being directed towards the centre of the circle, the convexity remaining still firmly attached. The scale is adherent at its outer edge, but by a little force it can be peeled off, two or more inches in length of the epidermis being in this way separated in an unbroken ribbon. The rings are about an eighth to a quarter of an inch apart, being quite regular in outline for five or six inches, or interrupted at intervals or irregularly convoluted. These appearances are well illustrated by accompanying photographs. Leucodermic patches are sometimes left in places where the disease has been longest in existence. The microscopic appearances of the fungus differ, according to Dr. Manson, materially from those in tinea trichophytina. The conidia are arranged in chains crossing one another in an elaborate net-work, while the mycelium is generally longer and straighter, with fewer irregularities than in the latter. The position of this more abundant growth seems to be more superficial than in ordinary ringworm. Several inoculations of the disease reproduced this variety uniformly. After an incubation period of nine days a brown mass is seen, which spreads into a brown scaly ring. When this has attained the diameter of half an inch, a brown patch again appears in the centre, and thus the disease spreads outwards in the form of numerous concentric rings until other systems of rings are encountered, and the peculiar wavy appearances above mentioned are produced. The author considers this as occupying an intermediate place, so far as its position in the cutaneous tissues and appearances are concerned, between tinea versicolor and tinea trichophytina.

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[1] Notes on Tinea Imbricata. 4to.

Cysticercus Bladders under the Skin. — Dr. Guttman has observed this occurrence now in four cases within the past two years. In the last instance exhibited to the Berlin Medical Society[1] the patient presented over one hundred bladders, distributed mostly over the upper half of the body, and most thickly upon the chest and upper arms. There were very few upon the head, abdomen, and thighs, and none upon the fore-arms. They lie immediately under the skin, which is perfectly normal, in the subcutaneous tissue. They have an oblong, oval, or roundish form, vary in size from a bean to a hazel-nut, and present an entirely smooth surface. They are painless on pressure, have a firmly elastic consistence, are slightly movable under the skin, and above the largest the skin is prominent. The tumors were discovered by the patient's wife less than a year ago, and since then have not increased in size or number, so that their period of growth is undoubtedly finished. This agrees with the results obtained by feeding tænia proglottides to animals, the cysticerci obtaining their full development within six months. There had been no brain symptoms, but complete amaurosis of one eye, dating back to the discovery of the subcutaneous cysts. Examination for intraocular cysticercus was prevented by the existence of cataract. Extirpation of one of the tumors revealed the presence of the animal within the cyst.

In another case, reported by Schiff,[2] with the appearance of the subcutaneous cysts epileptiform convulsions occurred, which continued at intervals for nine months, and then ceased. These were regarded as characteristic symptoms of cysticerci of the brain. Although the patient confessed to having eaten raw beef, this would not explain the presence of cysticerci of tænia solium, because those of tænia mediocannellata alone are found in beef.

A Tubular Rubber Bandage. — Dr. Fox, of New York, exhibited at the recent meeting of the Dermatological Association an elastic tubular bandage which he had found preferable in many respects to the ordinary rubber bandage in the treatment of eczema and ulcers of the leg. Its advantages over the latter form he expresses[3] as follows: (1.) Its lightness. The thin, tubular bandage is scarcely felt by the patient wearing it, and is far less likely to irritate the skin than the other form. (2.) The equable pressure it exerts. (3.) The saving of time and trouble. In most cases it is not necessary to remove the bandage in order to cleanse the affected part; it can easily be rolled up or down. (4.) Its cheapness, on account of the small amount of rubber used in its construction. The diameter of the tube is to be chosen with reference to the size of the part to be covered. As a rule, the lighter the better and cheaper. When forcible pressure was required a heavy bandage was necessary. In applying it to the leg it is best to oil the part first.

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[1] Medizinisch-chirurgische Rundschau, August, 1879.

[2] Viertelj. für Derm. und Syph., vi. Jahrg., page 275.

[3] Archives of Dermatology, October, 1879.

THE PUBLIC HEALTH ASSOCIATION.

FOURTH DAY.

Dr. R. G. Jennings, of Little Rock, read a paper on Quarantine and its Results in the State of Arkansas. This was followed by a report from Dr. D. C. Holliday, of New Orleans, for the committee of the New Orleans Medical and Surgical Association on subjects submitted by the executive committee of the American Public Health Association. The following are some of the views therein expressed. He says: "We do not believe that yellow fever is *contagious*, communicated from body to body, but that the cause, whatever it may be, spreads through the atmosphere, and that a certain amount of the poison in this medium is necessary for its manifestation. That its spread is not by diffusion, otherwise it would grow less and less in intensity, but that it is capable of multiplying in some way, as yet unknown to us, thereby increasing the intensity of its infection. That this atmospheric infection tendency, while greatly due to, is not wholly dependent upon, heat and moisture, but that the presence of decomposing organic material and the gases arising therefrom enters largely as a factor, if not in its production, at least in its spread, and that cleanliness of person and surroundings will go far towards preventing its spread, if not securing its entire eradication. The removal of the unacclimated from the place of infection is a measure of wisdom, and would save many lives. The presence of the disease and its disposition to spread, as manifested in the successive attacks of several members of the same household or adjoining households, should be the signal for a general removal of the unacclimated, for the rapidity of its spread is evidence of its intensity. When the disease has progressed to such an extent as to render a place *dangerously infected*, within the meaning of the term as employed by the National Board of Health, we would recommend the removal of all persons liable to infection, and regulate intercourse so as by all possible means to prevent the ingress of unacclimated persons.

Dr. John F. Cameron gave his views on Camps and Depopulation at Memphis in 1878–79: The government readily responded to a call for one thousand A tents, and upon their arrival, August 15th, Camp Jo Williams was established four and a half miles south of the city, on the line of the Mississippi and Tennessee railroad. The site was selected for its isolated location, altitude, shade, ample springs of superior soft water, perfect drainage, and accessibility to rail communication. The sole fault in the selection of the grounds, both in 1878 and 1879, was their proximity to the city, which rendered it impossible to prevent visitation to and from the infected districts, despite rigid rules, expulsion from camps, arrest by quarantine picket, etc. The inhabitants entered the jaws of almost certain death rather than forego the pleasure of a drunken debauch, plunder, or the like. In 1879 this was in a measure obviated, as parties were arrested for violating the state quarantine law, placed in jail, or summarily dealt with. This deterred many from absenting themselves from camps, and rendered isolation more complete. The camps were laid out on three swells of ground, stretching one half mile. The tents were pitched along the crests and in regular order, many in avenues facing each other, and along the edges of slopes, whose crests ranged from thirty to one hundred and fifty feet in width. These A tents were pitched five feet apart, and numbered as are streets. In 1878 the Camp Williams broke up on October 31st. Average number of people drawing rations from Camp Marks, thirteen hundred and four; number of yellow fever cases fatal, nine; average length of illness, ——; number of deaths from yellow fever, four percentage. The camp broke up October 28, 1879; all hospital furniture, bedding, etc., was burned; the building was fumigated, torn down, and sold on the ground. Two of the population were taken ill of the fever after their return to the city; both died. The general health of the camps was good; a low temperature prevailed, together with considerable damp, cloudy, and rainy weather. This, in the earlier settlement, might have produced disorders common to camp life, but a few weeks' acclimation, during a period of dry and pleasant weather, hardened the system, and fitted old and young for the inclement weather which followed. A city may be depopulated in this manner at the rate of one thousand per day.

Dr. A. N. Bell, of Brooklyn, made a few remarks on Steamboat Inspection.

THE NATIONAL BOARD OF HEALTH.

Dr. Folsom said that he had been directed by the advisory committee to offer the following preamble and resolutions: —

Whereas, the National Board of Health has, in accordance with the law which created it, requested the advice of the American Public Health Association regarding the form of a permanent national health organization of the United States, including its relations to quarantine, both maritime and inland; and,

Whereas, the opinions of the advisory council of the association, upon the subject of health legislation, collected and presented to this body through Dr. J. M. Toner, chairman of the council, have been duly considered; therefore,

(1.) *Resolved*, That, in the opinion of the American Public Health Association, the present National Board of Health has been of such vast service to the country that it is not expedient to make any essential change in its organization, and that any minor improvement in details should be left to the board itself.

(2.) That the investigations which have been commenced by the board are approved, and should be continued, and that similar investigations should be undertaken by it into the consideration and prevention of other diseases as well as yellow fever.

(3.) That Congress should appropriate sufficient funds to enable the board to employ the best talent and apparatus in such scientific and practical inquiries.

(4.) That the operation of the existing quarantine law, and of the rules and regulations prepared by the National Board of Health on that subject, have accomplished great good, and that no change in the law should be made without the most careful and serious consideration.

(5.) That in the opinion of this association the national quarantine should be under the direction of the National Board of Health and of an executive committee, to be selected by that body.

(6.) That this association has no suggestions to make with reference to any amendments to existing legislation in regard to quarantine, preferring that they should come from the National Board of Health, as the most competent body to advise whatever may be best.

(7.) That it is expedient for the National Board of Health to call an international congress for the discussion of the very important subjects of international sanitary quarantine, etc.

(8.) That it is the duty of the general government to build, equip, and conduct, at the mouth of the Mississippi River, a quarantine station at such a place as may be designated by the National Board of Health.

(9.) That the secretary of this association be instructed to forward to the National Board of Health a certified copy of these resolutions, together with the reports and documents of the advisory council; and that the executive committee be instructed to take such action, during the next session of Congress, as may seem best suited to promote legislation in accordance with these resolutions.

Dr. Folsom also read the following resolutions, but said that, as the points contained in them were included in those of the advisory committee, they were not recommended for adoption: —

By Judge J. W. Clapp, of Memphis: Whereas, the appearance of yellow fever as an epidemic in Memphis, Tenn., during the last two summers has created an apprehension that the ill-fated city may continue to be visited by this scourge, the effects of which extend far beyond the infected locality and assume national importance, not only as regards the public health and safety, but as affecting our inter-state commercial relations; therefore,

Resolved, That this association recognizes the fact that the sweeping epidemics which have occurred in Memphis during the past two summers have been of such a character that they are no longer local in their bearings, but *national*; therefore, the early consideration of measures looking to the prevention of similar epidemics at that point is respectfully urged upon Congress.

By Dr. Gibbs, United States navy: Be it resolved by the American Public Health Association, that it shall be the duty of the National Board of Health to designate, for the information of the president of the United States, such foreign ports as shall, by said board, be deemed infected, in the sense that all vessels, arriving from the same into the sea-ports of the United States, shall be subject to quarantine laws. The previous sanitary history of said foreign ports, based upon consular and other information, shall be considered by the National Board of Health in designating such infected ports or localities.

Be it further resolved, that it shall be the duty of the president of the United States, upon being so advised by the National Board of Health, to cause a general proclamation to issue, in which a list of such ports and localities shall be declared infected in their commercial relations with the sea-ports of the United States for a period of six months, namely, from the first day of May until the first day of November.

YELLOW FEVER IN NEW ORLEANS IN 1879.

Dr. S. S. Herrick gave a statement of the cases of fever in New Orleans in the summer of 1879. The cases were only forty-one in all, to which number should probably be added seven cases which occurred earlier, beginning June 16th, and between that time and July 3d, so mild in type as not to be recognized as yellow fever until they were found to be connected with cases occurring later. A case occurred as early as the 26th of March, on the steamer Baltimore. This case was treated at the quarantine hospital, and had no possible connection with the subsequent fever in the city.

At the outbreak of the fever at Mississippi City, the first case was that of a servant girl who had been employed in the Stout family, where were a number of the cases above mentioned. Four or five other cases followed this in quick succession.

The next case occurred on the 22d of July, followed by a fatal case on the 24th. Eight or ten cases followed, all in the neighborhood of the residence of the Stout family. At this time there was a cessation until the 10th of August, when there was a case in the fourth district, a point nearly two miles distant. This was a young man who had been employed in the work of disinfection in the infected district. Several cases occurred in the next twelve days, all in the same fourth district. There seemed to be then but two foci of disease. Two or three other cases were at points in the rear of the fourth district, but these were clearly traceable to exposure in the same region. A case also occurred in the rear of the first district, which resulted fatally, and which was not traceable to any known cause.

ENFORCEMENT OF QUARANTINE.

Dr. Samuel H. Choppin, of New Orleans, discussing the report of the committee of the New Orleans Medical and Surgical Association, said that no quarantine could be effective on account of the laxity in the execution of the laws and the opposition of commercial interests. The yellow fever was thus carried to New Orleans, and it was thus carried to Memphis.

Dr. Lloyd Howard, of Baltimore, referring to the difficulty of enforcing quarantine, said there were so many ways of spreading the infection that this difficulty could be easily accounted for. He mentioned sleeping-cars as an instance of this.

THE ADVISORY COMMITTEE.

The president announced the appointment of the following advisory committee : —

Alabama, R. D. Webb ; California, Dr. Henry Gibbons ; Florida, Hon. S. C. Cobb, Pensacola ; Georgia, Dr. H. F. Campbell ; Illinois, Dr. J. H. Rauch ; Indiana, Dr. J. F. Hibberd ; Mississippi, Dr. Wirt Johnston ; Louisiana, Dr. D. C. Holliday ; Maryland, Dr. James A. Stewart ; Massachusetts, Dr. Azel Ames ; Pennsylvania, Dr. Henry Hartshorne ; Ohio, Dr. T. C. Minor ; Missouri, Dr. Homan, St. Louis ; Rhode Island, Dr. E. M. Snow ; Tennessee, Judge J. W. Clapp ; Virginia, Dr. L. S. Joynes ; Michigan, Dr. H. B. Baker ; West Virginia, Dr. James E. Reeves ; District of Columbia, Dr. Toner ; New York, Dr. Elisha Harris ; North Carolina, Dr. J. F. Wood ;

South Carolina, Dr. C. W. Chamberlain; New Hampshire, Dr. L. F. Conn; Vermont, Dr. H. D. Holtar; Texas, Dr. Rutherford; Wisconsin, Dr. E. L. Griffin; Minnesota, Dr. C. N. Hewitt; New Jersey, Hon. L. Lilly; Arkansas, Dr. A. L. Breysacker; Kentucky, Dr. Pinckney Thompson; Delaware, Dr. Bush; United States Army, Dr. McParlin; United States Navy, Dr. B. F. Gibbs; National Board, Dr. Stephen Smith; Commissioner of Education, General Eaton.

CONFLICTING THEORIES OF QUARANTINE.

Dr. Billings remarked that to depend solely on quarantine or municipal sanitation would be unsatisfactory. They had yet agreed on nothing, and it behooved them, in the few hours that remained, to agree on some plan as representing their ideas on quarantine.

Hon. S. C. Cobb, of Pensacola, said that, as a business man, he desired to know what practical thing it is proposed to do in this matter of quarantine. If we wait until an agreement between the conflicting theories of the doctors, nothing will be done. How will you prevent the importation of yellow fever? He would answer, By an effective and *intelligent* quarantine.

The National Board of Health cannot enforce their regulations at the ports from whence infected vessels come; the danger must be met and combated at our own doors. Detention of vessels at quarantine varies from four to forty days in different parts of the country. How much time is necessary? What we want is to hold them long enough to effect the object of purification, but not an hour longer.

During the last summer twenty-two ships arrived at Pensacola from Rio, three of them having cases of fever on board. The board of health found it sufficient to discharge cargo and ballast, thoroughly disinfect and fumigate and then permit the vessel to load and depart; but of ninety-two vessels arriving from West Indian and South American ports none were detained more than twenty-four hours. No fever has prevailed in Pensacola this year, nor in any year in which these precautions were observed.

In their intercourse with New Orleans, restrictions were made as light as possible. Groceries and metals and similar articles were admitted without any hindrance; with regard to clothing, dry goods, etc., restrictions were made rigid.

The question should be settled whether there should be certain designated ports, at which all vessels from infected ports should be required to enter, such ports having a uniform code of quarantine rules, or whether they should be allowed to enter any port at pleasure, such ports having different systems of quarantine.

Dr. A. N. Bell, of New York, thought that quarantine regulations should bear with as much force on the prevention of the spread of disease as against its introduction or exportation. He had never heard of any disease being epidemic on a clean ship. He favored thorough disinfection and perfect cleanliness on all ships leaving ports where yellow fever existed or was suspected, and inspection at frequent stages of their journey. He believed that disinfection was effective, if done thoroughly, and burning sulphur was the most effectual way. Any vessel in a filthy condition, whether she has disease on board or not, and regardless of the port of her departure, should be considered as having a gross bill of health, and be treated accordingly.

POWERS OF THE NATIONAL BOARD OF HEALTH.

A paper from Gustavus Devron, of New Orleans, was read by the secretary. He approves of the establishment of the National Board of Health, which he thinks should have exclusive control of the national quarantine, the state boards of health being left to get up statistics, and to enforce the rules and regulations that might be promulgated by the National Board.

Dr. J. P. Dake, of Nashville, spoke in favor of isolation. Amongst other statements he said: —

"Soon after the disappearance of the epidemic of last year, I was in the city of Vicksburg endeavoring to learn something of the character and habits of the disease, and while on top of the court-house viewing the field of the epidemic, an old citizen, pointing to the jail below us, with its brick wall and but one door or entrance, remarked that, notwithstanding the fever had been in nearly every house around that institution, *not one case had occurred among its inmates.* I was told the number of inmates, but cannot now recollect it.

"Soon after, while in the city of Memphis, being shown over the track pursued by the epidemic there, I was told that for some weeks after the appearance of the fever, and while cases were in the immediate neighborhood of the jail, not a case occurred among the inmates of that institution, till at last a culprit was admitted having the fever at the time of his admission.

"These, Mr. President and gentlemen, are significant facts. They teach most unmistakably *the value of isolation.*"

STATE RIGHTS AND A NATIONAL QUARANTINE.

Hon. E. E. James, of Chattanooga, addressed the association as follows: —

"Mr. President and gentlemen of the association: I have been listening with a great deal of pleasure for the last few days to the reading of many very learned and erudite papers and speeches from eminent gentlemen upon the subject of epidemic diseases, and have been greatly instructed thereby. And from the conflicting opinions of the many gentlemen so distinguished in medical and sanitary science I have been convinced that yellow fever is epidemic, exotic and indigenous, foreign and domestic, climatic and anti-climatic, national and international. And, so believing, I am in favor of that government having the greatest power and longest purse taking charge of the great work of the control of epidemic diseases. The constitution of the United States says: —

"'The Congress shall have power to regulate commerce with foreign nations and with the several States.'

"The constitution confers no power to make sanitary regulations of any kind, and yet the power to coöperate with foreign nations; to make general regulations applicable to foreign commerce, in all its ramifications, for the preservation of public health and commerce, prevention and spread of disease; to enter into conventions with foreign nations, to establish commissions of inquiry for that purpose, is admitted. The power grows out of the fact that it is a power incident to and necessary to the general powers granted. It is the power to repress or to prevent that which materially interferes with and may destroy commerce. The same power necessarily flows from the power to regulate commerce between the States. Epidemics are of themselves destructive of almost all commercial intercourse. The object is general, and therefore one properly within the sphere of the federal government. The only question then is whether or not it has been granted. It is as clearly inferable and as clearly incident to the power to regulate commerce between the States as the power to provide sanitary regulations for the foreign commerce is incident to and inferable from the grant of power to regulate commerce between the United States and foreign nations.

"In the epidemic of 1878, when the people of the country did not understand the disease any better than the physicians (laughter), they got scared and fell back on the barbarian's right of self-defense, and refused the privilege of establishing a camp two miles out from Chattanooga, on the high lands. A camp was established, however, and that night citizens with shot-guns went over and burned it down, and swore one should never be established there. The camp was near the Georgia line, and men with shot-guns walked over from Georgia and crushed out Tennessee sovereignty. Another camp was established, and the right of eminent domain maintained over that camp by shot-guns. (Laughter and applause.) In the case of an epidemic there must be some central power which will be respected and can enforce its mandates. But when the matter is left to some 'Jigadier Brindles' or cross-roads magistrates, public health cannot be maintained. He knew the reason why the railroads hated to ask Congress for a national quarantine. If they had done so it would be said, 'Ah, you are agin state rights; you are agin the legislater, and we 'll restrict your trade and travel, and ruin and bankrupt you.' Now, he came up there to ask men who did n't own railroads to any considerable extent, he presumed (laughter and applause), to do that which would promote the public health. He was a democrat, and that was why he belonged to this association. (Laughter.) He was opposed to Uriah Halstead spelling nation with a big N, and he was still further opposed to spelling State with a big S, if epidemics were to run riot over the land."

Dr. Jerome Cochrane, of Mobile, approved the resolution in general, though some of its expressions needed modifying. The National Board of Health had the right to quarantine against foreign ports, or to prevent the carrying of the fever from one State to another, but no right to lift a finger to prevent the fever from being carried from one part of the State to another. Their measures were all supplementary.

Dr. O. R. Early, of Columbus, Ky., offered the following resolutions: —

Whereas, there being a diversity of opinion as to the cause of yellow fever in this country, at the same time the large majority acknowledge that its development is dependent upon a foreign spore or *fomes;* hence we all recognize the necessity of keeping at a distance this fecundating or germinating agent, and we know of no more efficient agent or action to effect this; therefore,

Resolved, That this association earnestly and respectfully ask the National Board of Health to establish, at the proper time, an efficient, systematic, and judicious quarantine at all ports of entry or approaches to this country.

Resolved, That the National Board of Health be also requested, if it be in their power, either as an organized body or through Congress, to forbid, by law enacted for this purpose, vessels being freed from their bilge-water within the jurisdiction of this country, unless it be absolutely a necessity to preserve the crew and ship from destruction.

Resolved, That the National Board of Health be also requested to place upon all the avenues of approach to this country medical men as sentinels, who are fearless enough to discard private interest in the performance of their public duty when the former clashes with the public safety.

As an evidence that yellow fever was sometimes carried by *the person*, and not necessarily by his effects, Dr. Early mentioned the case of a man who left Vicksburg, where fever was prevailing, for Jacksonport, Miss., leaving his baggage to be forwarded by a different route. Nine days after he was attacked by fever. He was stopping at a house where a large number of ministers were stopping, together with their families and servants, none of whom took the disease.

A report from a committee appointed at the meeting of the association at Richmond, last year, to collect and distribute money for the relief of the widows and orphans of physicians who died during the epidemic having been called for, Dr. Hewitt, of Minnesota, chairman of the committee, reported that no action had been taken by the committee, because no cases requiring relief had been brought to their notice, and also because it was understood that Dr. Peters, of New York, had collected a considerable amount of money, which he was using for that purpose.

After some further hearing the association adjourned.

The American Public Health Association was organized at Long Branch, in September, 1872, and Dr. Stephen Smith, of Washington, D. C., was elected president. A meeting of the association was held in May, 1873, in Cincinnati, and in October of the same year in New York city. Dr. Smith continued as president until 1874, when the association met in Philadelphia, and Dr. Toner, of Washington, was elected. Dr. Snow, of Providence, R. I., was elected in Chicago, in 1875; Dr. J. H. Rauch, of Chicago, at Boston, in 1876; Dr. Elisha Harris, of New York, at Chicago, in 1877; Dr. J. L. Cabell, of the University of Virginia, at Richmond, in 1878; and Dr. J. S. Billings, U. S. A., at the present meeting of the association.

THE MEETINGS OF THE PUBLIC HEALTH ASSOCIATION AND OF THE NATIONAL BOARD OF HEALTH AT NASHVILLE.

THE outbreak of yellow fever in the summer of 1878, and the appointment of a commission of investigation by the president, at whose head was the late surgeon-general of the marine hospital service, lent an additional interest to the last annual meeting of the Public Health Association at Richmond. Since then the year has been an eventful one, as far as the public health is concerned. The discussions at Richmond and the report of the first commission of investigation, in regard to which a pretty general feeling of disappointment was expressed at the time, were followed, upon the meeting of Congress, by a rapid succession of bills, some very bad and some pretty good, for the creation of a national board or department of health; by the final passage of one of these as an act establishing a temporary board, the members of which were to be named by the president; by the appointment of a second investigating committee of *experts*, whose report was also received with considerable disappointment, except on the part of those who expected little; by the organization of the temporary board, with its subsequent efforts to carry into effect the suggestions made to it by Congress without exceeding the powers and resources granted; by the outbreak of yellow fever in Memphis again this summer, and the successful attempt of the National Board, coöperating with and directing state and municipal boards, to confine the epidemic within certain limits.

We have endeavored to keep our readers as fully informed as possible of these events as they succeeded each other, by means of reports, letters, and leading articles, and we believe a very fair retrospect of questions touching public health during the past year may be obtained from the pages of the JOURNAL. Continuing this policy, we offer in the last and the present issues a paper read before the Public Health Association by the president of the Memphis Board of Health on the late epidemic of yellow fever in that city, a very full report of the meeting of the association at Nashville, and a letter from a correspondent criticising pretty sharply the transactions of the association, as well as the composition, methods, and achievements of the present National Board of Health.

The proceedings of the association we do not find any more inspiring than usual, and are disposed to think its president would have done well to omit from his address any favorable mention of the Gamgee refrigeration scheme, which the board wisely refused to recommend last winter.

Questions of sanitation, like others, may have two sides, and where congressional legislation is concerned there is not rarely an unwritten history. When practicable we wish to offer our readers material for forming their own opinions. A department or board of public health was necessary, and sooner or later inevitable. We know it is thought by some, whose opinions we are accustomed to regard with much consideration, that events and perhaps individual eagerness forced legislation upon the country before it was quite ready for it or knew what it wanted. Congressional legislation last winter was perhaps somewhat hasty, though not nearly so much so as it at one moment threatened to be, and the result has to our mind been quite as satisfactory as any reasonable person could have hoped. It is to be regretted that public hygiene should necessarily have been identified in the public mind so exclusively with quarantine and the suppression of yellow fever. Too much has been expected, and in too short a time, and authorities have perhaps hoped to do too much in too short a time. This has caused some reactionary disappointment here and there, which a little reflection will dissipate. Some slight mistakes may have been made, but a great deal of good work, very good work, has been done, and this we believe is recognized at the South, where they have been benefited by it. A year ago it was hard to find a Southerner who would admit that any place was filthy, or that it made any difference if it were, and protection was synonymous with a strict quarantine of non-intercourse. Opinions have changed very much on these as on other points since. It is inevitable that the work of an unpaid non-resident board should devolve largely on one man, and it is necessary that such a man should have the confidence of the country, of the profession, and of Congress. We have never seen any reason to regret the refusal of the congressional committee last winter to report the Lamar bill, and we have not as yet heard of any probable change in the present character of the National Board which would be likely to result in an improvement. The subject is soon to be presented to Congress, and there will be occasion to refer to it again.

SHALL LYNN ESTABLISH A BOARD OF HEALTH?

At the approaching municipal election, the citizens of Lynn are to vote for the second time upon the acceptance of Chapter 133 of the acts of the legislature of 1877, a statute which provides for the establishment of independent boards of health in the cities of Massachusetts. In 1877, Lynn, in common with Fitchburg, Gloucester, Newton, and Chelsea, rejected the law; it was adopted in Cambridge, Lowell, Worcester, New Bedford, Newburyport, Lawrence, Somerville, and Fall River. No vote on it was taken in Haverhill, Holyoke, Salem, Springfield, and Taunton. We hope the citizens of that busy place will take a different view of what is for their welfare now.

An adoption of the law, they would unquestionably find, would add greatly to health, and consequently to wealth and happiness in the long run, although it may be difficult to persuade the superficial observer of the greater enonomy of any change in the present administration, when he tells you that the expenditures of the board of health, which at present consists of the board of aldermen, for the year 1875 were only $47.59! And Lynn is a city of 32,600 inhabitants.

We have received a special appeal to the citizens of Lynn, in regard to this subject, issued by the Sanitary Association of that place, under the title of Sanitary Tract, No. 2. We hope this admirable little paper will be widely circulated and read among those whom it so nearly concerns, and that those whom its necessary brevity does not convince may be induced to consult the very excellent and careful report of Dr. T. G. Tinkham, on the Sanitary Condition of Lynn, which was published in the report of the State Board of Health for 1877.

From this report, we learn that the mean death-rate of Lynn, for twenty-five years, from 1851 to 1875, inclusive, was 19.1. There were five cities in Massachusetts of more than 20,000 inhabitants having a lower death-rate, and six with a somewhat higher death-rate.

We wish we had room to quote more fully from this report in this connection, but must at least give the author's summary of the most pressing sanitary needs of Lynn, which are: (1.) More attention to soil drainage. (2.) An improvement in the public water supply. (3.) A better system of sewerage. (4.) An improved method of disposing of night-soil and the contents of cesspools. (5.) A better system of removing garbage. (6.) More attention to the subject of ventilation. (7.) A more effectual plan for limiting the spread of certain zymotic diseases. And (8) the most urgent need of all, the establishment of an independent board of health. These improvements would certainly involve expense, nor could they all be undertaken and carried through at once.

But any necessary outlay for these objects would surely return interest an hundredfold. We know of no city in this commonwealth which, having established an independent board, has found reason to regret it.

WOMEN AND THE MEDICAL SOCIETY.

The question of the admission of women to the Medical Society appears to be assuming a new and important phase. We understand that the censors of the Suffolk District, who act also for the society at large, have such grave doubts of the legality of the action of the council that they have presented a communication to that body. We are not informed of the precise nature of the points raised, but we can easily imagine that the censors feel themselves in a responsible and delicate position. If they believe that they have no right to examine women, they certainly would be false to their trust by doing so; on the other hand, if they unreasonably refuse to examine any properly qualified applicant, every censor is liable to a fine of four hundred dollars for every such case. We hope the council will give the matter prompt and serious attention. The question at issue is not whether it is desirable that women should be admitted, but whether or not there has been inaccurate legislation. All must unite in wishing this question treated so carefully that there can be no doubt as to its final settlement.

MEDICAL NOTES.

— The annual report of the surgeon-general calls attention to the increased amount of work brought to the pension office by the act of Congress passed last winter granting arrears of pension. There are at present nearly five thousand cases awaiting their turn for investigation. The second medical volume of the Medical and Surgical History of the War has been published under the direction of Surgeon J. J. Woodward. We hope to notice at an early date this valuable volume. We are glad to learn that the medical and surgical volumes of Part III., which will complete this great work, are both under way. In speaking of the surgical statistics of the war the report mentions the interesting fact that records of nearly three hundred thousand cases are now on file.

— Dr. Oliver Wendell Holmes was entertained at the Brunswick on December 5th by the publishers of the *Atlantic Monthly*, in honor of his seventieth birthday. A company more prominent in the field of literature has rarely been brought together. The names of Longfellow, Emerson, and Whittier were to be found on the list of those expected to be present, and such distinguished ladies as Mrs. Harriet Beecher Stowe and Mrs. Julia Ward Howe graced the occasion by their presence. New York was represented by Mr. Harper, the publisher, Mr. Winter, of the *Tribune*, and many of her well-known literary men. Even Ohio sent a representative in the charming authoress of An Earnest Trifler. Dr. Holmes's professional attainments were happily alluded to by President Eliot in one of the best speeches of the occasion. We were glad to see that the work he has done for medicine was not lost sight of, and that his life-long service as professor of anatomy had its due recognition. The medical profession will cordially second, we feel sure, the expression of admiration and respect which were so liberally showered upon him by his younger brethren in literature.

— The thirty-fifth annual meeting of the Massachusetts Teachers' Association will be held in the Girls' High School building, West Newton Street, Boston, December 29th, 30th, and 31st. Many interesting and valuable papers will be read, and all friends of education are invited. There will be a general metric meeting at the same place December 29th, at two P. M.

— The McHenry Medical College in Nashville, Tennessee, has recently issued its fourth annual announcement. The standard of this school is quite high, its course being three years in length and graded in its arrangement. But what makes it especially interesting is the fact that it is devoted exclusively to colored students. Graduates, it is said, are meeting with excellent success, and since colored physicians are needed in the South by their own race the school undoubtedly will continue to prosper.

— The approaching new year already casts its shadow before in the form of the first of the usual new batch of medical journals. The *Chicago Medical Gazette* is a bimonthly periodical, and has an enterprising appearance. We can hardly accord to it the greeting "that the want has been long felt," as we have always thought our Western sister pretty well off in respect to medical literature.

NEW YORK.

— Negotiations are now on foot to bring about a consolidation of the Medical Journal Association with the Academy of Medicine. It will perhaps be remembered that about a year ago an attempt in this direction failed, but there seems to be little doubt that this desirable consummation will now at length be successfully accomplished. At the last meeting of the board of trustees of the Academy, a committee, consisting of the president and secretary of the board, was appointed, with power to settle the terms of the union on the basis of some propositions lately discussed between the officers of the two societies, namely: First, the initiation fee and dues for the first year to be remitted to those members of the Journal Association who are eligible and shall be elected Fellows of the Academy of Medicine, and those who are not eligible by reason of time only to have the same privilege when they become eligible. Second, if thought necessary for the success of the proposed union, the dues of those members of the association who are already Fellows of the Academy to be remitted for one year, provided they present a written claim for this remission, as a consideration for their share in the books, journals, and surplus funds of the Medical Journal Association. Third, journals to be taken out under the same rules as have governed the Journal Association in this matter, so soon as the by-laws of the Academy can be altered to permit this.

— The annual meeting of the St. John's Guild was held November 18th, with the new master, the Rev. John W. Kramer, presiding. The treasurer's report showed that $23,481.68 had been received during the year, and $17,523.47 expended, leaving a balance in the treasury of $9958.21. Last summer the floating hospital made thirty-five trips, upon which it took out 27,818 children and mothers, who were supplied gratuitously with food and medical attendance. It was decided to have the annual Martha Washington reception on the 24th of January at the Academy of Music.

THE EXPERIENCES OF A SUCCESSFUL PRACTITIONER.

Mr. Editor, — Although my great professional success has placed me beyond any vanity for new triumphs, I cannot help expressing my satisfaction in seeing my letters republished "in your excellent, influential, and widely circulated journal." I hope that the foregoing compliment will permit me to "call your attention to an error of your printer."

It so happens that, very unfortunately for my reputation in this country and abroad, you call me the "Pea Ridge" instead of the "Pine Ridge" practitioner. The fact is, my former partner lives at Pea Ridge, and is making capital for himself by claiming to be the author of my letters. I have heard, incidentally, that many patients really sent to me have come under his care in consequence of your error. This would be a small matter, as I did not write to advertise myself, but in justice to "my noble profession, of which I am an humble member," I believe it to be my duty to expose fraud.

I may say, in passing, that White is growing a little cool towards me. I cannot imagine the reason for this, except that I now have another of his good families. I was called in consultation a month ago, and heard nothing more of the case until the father of the family asked me to be the regular attendant henceforth. I at first refused, and told him of code regulations, when he said that he had really discharged White; that it was a free country, and he was determined to have a doctor to suit himself. I smilingly said "there was no accounting for people's tastes," and rather reluctantly consented to oblige him. I felt it my duty, however, to say a good word for poor White, by remarking that, notwithstanding almost all his patients eventually came to me, I really pitied him. He deserved better things. I saw, however, that my new patient did not care to sympathize with me, inasmuch as he said he believed in the survival of the fittest. But it only shows how ungrateful patients can be.

Please give my compliments to your friend in Pau, France, and tell him that when he returns to this country I should be happy to meet him in consultation. I intend to send him a copy of the latest edition of my work.

If it is not asking too much, you may mention in "your valuable journal" that I have been elected trustee of our college, and that the class is larger than ever this year. Also that I have performed my nine hundred and seventieth operation for abrasion of the os, and am just completing the fortieth edition of my work, which will be immediately translated into all the foreign languages. When you receive the work for review, be careful not to send it to my partner at Pea Ridge. Very sincerely yours, * * *

Pine Ridge on the Hudson.

SHORT COMMUNICATIONS.

THE NATIONAL BOARD OF HEALTH.

Mr. Editor, — There have been a great many accusations against the National Board of Health during the past summer. Of late, however, the tide seems to have turned a little, and much has been said in defense of its work and its members. Will you permit me to state some of the reasons why, in spite of this, a great many persons, both amongst the laity and the profession, continue to look upon the board with disfavor, and hope that, if continued, Congress will very seriously change its present form. I know that many of the past summer's complaints have had quite as much of vituperation as reason in them; and I intend to state what may be called our position as dispassionately as possible.

Of recent indorsements of the board, the one in the December number of the *Atlantic Monthly* is perhaps the most prominent. Colonel Waring has written a very sensible article from the stand-point of such facts as he was acquainted with. But his knowledge was confessedly superficial, and the article itself is extremely so. It is indeed by no means creditable to a magazine which aims to be the repository of well-matured papers that it accepted this. However, it is not my purpose to criticise it directly. Another strong indorsement of the board has recently been given by the American Public Health Association. The fact that the three prominent officers of the National Board of Health were also the three leading officers in the Public Health Association undoubtedly had much to do with such action. The president of the association (and of the health board) devoted the whole of his opening address not to any great sanitary problems, but to an elaborate history and defense of the board over which he presided. Considering that, after all, the national board is a comparatively insignificant element in the sanitary problems of the day, this was hardly doing justice to the association. On the other hand, the association itself did not do justice to those interested in sanitary and quarantine matters when they, without discussion, voted approbation of a board which has had during the past summer so much criticism from many reputable sources.

So much for recent history. The record of the board's creation and organization has been given often enough, and I shall only touch upon some parts of it.

There is a little pathos in the story of the high compliments and honors paid at Nashville to the leading men of the National Board, for the man who, above all others, was the moving spirit both in making the Public Health Association a success and in forcing the necessity of public health legislation upon Congress is now dead. And there was not a word in recognition of his memory or services. When Dr. Woodworth died his work was taken up by others. The National Board of Health was created, with advisory powers, and with $500,000 to lend emphasis to its advice. Allow me to allude to some of the facts (they cannot all be printed) in its subsequent history which have led so many to discredit its past work or further usefulness.

When the members of the board were appointed there was a very general satisfaction over the choice that had been made. It included some of the best sanitarians in the country. Unfortunately, however, the members lived so far apart that they could be of little practical service. It was seen at once that its authority must be delegated, and at its first meeting this was done. An executive committee of five was authorized to act for the full board. The membership of this committee was such that, practically, all the power of the board during the past summer has been vested in one man. Although such an arrangement has certain advantages, it does not seem right that an organization that appears to be conducted by eleven should really be conducted by one; nor is the private history of the way in which the present arrangement was brought about particularly creditable. I do not care, however, to dwell on petty intrigues. After the organization was completed the building of a ship was one of the first things to strike the public interest. The Gamgee refrigerating ship is associated with many dark tales. In spite of the defense of the board's action in regard to it, the affair was not to its credit. It never could have been anything but a hygienic monstrosity. The Delaware Breakwater *fiasco* threw much more discredit on the board. The plan of sending out sanitary inspectors was perhaps necessary to get matter for the *Bulletin*. The reports of these gentlemen, however, were trivial, and many of the inspectors themselves were densely ignorant, or mere political pensioners. It is of course unnecessary to except such men as Dr. Harris and Dr. Bell, whom I would be the last to discredit.

In general, however, these inspections were ridiculous performances, and could have been done much better by the local boards. Perhaps there was in Boston, as in New York, an inspector investigating our sanitary condition at ten dollars a day and expenses. Several numbers of the *Bulletin* contained valuable papers. Apart from these, I do not know that there was ever a sanitary publication of so little practical value. The Cuban commission, as far as can be learned, has been a failure. No one, perhaps, can be blamed for this. There were certainly good men upon it. Some value, too (though I hardly know what), may be attached to its discovery that yellow fever has been endemic in Havana for one hundred and eighteen years, that Cuba is unhealthy, and that in yellow fever there is a degeneration of the white blood corpuscles. Exactly how much the board practically accomplished last summer it will be difficult to say. Its best work has been in assisting local health boards and in formulating rules for internal quarantine. It is not the opinion of the Southern press that it prevented the fever from spreading. It is to be remembered also that it is the rule that great epidemics of yellow fever never occur in successive years. No one, however, can deny that it has done considerable good; but the point is, that it has not done anything that could not have been accomplished with less display and expense by some other agency, and that its possibility of future usefulness is very slight. The expense attending the little that it did accomplish has been something rather appalling to the taxpayer. With thirty inspectors at ten dollars a day and expenses, with a dozen clerks at the usual government salaries, with office expenses, printing expenses, the Cuban commission and members' salaries, a very respectable sum of fifteen thousand or twenty thousand dollars a month is made up. And this does not include the money given away. It is a large amount for the country to pay for the publication of sanitary advice and a few well-known rules about disinfectants.

In brief, then, those who oppose the Board of Health do so because it is an institution run by and to the glory of a clique; because the good it has accomplished has been inadequately small and is now outlived; because its machinery is clumsy and needlessly expensive; because it has done enough blundering to justify a lack of confidence in the importance of its actions or the value of its judgments; because all the work it does or is likely to do can be better done by some other agency. The board's chief value was as a disbursing body; in this capacity alone it has been popular. It is not necessary, however, to create a new department at a great expense for the sake of paying out money with which to purchase consent to its advice.

The question comes now, What is to be done? Well, abolish the board, and let Congress, if it must give money to the South, give it in some less clumsy and expensive way. It has departments and bureaus already organized through which it could act. It is the rule that private organizations are more efficient than public, and private organizations — interstate councils, local and state health boards — will be adequate to the care of epidemics after our recent lessons. I am aware that a year ago some kind of a national board was a necessity; the people were frightened; they insisted on it. Since then, however, we have learned how little the government and how much the people can do. Interest in national health boards has subsided. The proceedings of the American Public Health Association were hardly noticed in Eastern papers. The public is ready to do without any more public health legislation of a creative kind from Congress. If a board of some sort, however, is insisted on let it be put under some of the already existing executive departments, where there is already machinery enough to carry out all the public health regulations which Congress can constitutionally enact.

This is the view which I know that many, both legislators and physicians, share with me. If it appears one-sided I can only say that nothing has been wittingly stated or implied that is not true; and that when you come to partisan statements nothing can much excel the interminable discourse in defense of the board with which President Cabell opened the meeting of the American Public Health Association.

A VOICE FROM NORTH CAROLINA.

"LET IT REST!"

UNDER the above heading the *North Carolina Medical Journal* speaks as follows: —

"We notice that S. Cabot, in the Boston Medical and Surgical Journal, says that he (or she) has not seen it mentioned that the medical societies of North Carolina and Rhode

Island showed any indication of their scientific decadence by admitting women to membership.

"We will not speak for Rhode Island, but we will say for North Carolina that one experiment is enough. There are no women doctors hung on to the state society now, and one more move would be a serious disaster to all concerned. The action of our State Society need not be quoted as an example to be followed, for the heart-burnings and bad feelings engendered by it will, perhaps, not subside in this generation."

* * *

REPORTED MORTALITY FOR THE WEEK ENDING NOVEMBER 29, 1879.

Cities.	Population estimated for July, 1879.	Reported Deaths in each.	Deaths under Five Years.	Percentage of total Deaths from				
				The Principal "Zymotic" Diseases.	Lung Diseases	Diphtheria and Croup.	Scarlet Fever	Diarrhœal Diseases.
New York	1,085,000	557	227	17.41	20.47	8.08	2.12	2.15
Philadelphia	901,380	238	57	13.03	7.98	7.98	2.10	—
Brooklyn	564,400	204	79	22.55	18.63	15.19	.98	2.45
Chicago	—	178	85	32.02	16.85	19.66	6.74	1.12
St. Louis	—	121	47	19.84	9.09	7.44	.83	4.13
Baltimore	393,796	157	56	19.75	7.01	5.73	6.37	.64
Boston	360,000	163	59	20.86	16.56	11.04	1.23	4.29
Cincinnati	280,000	87	37	20.69	10.35	5.75	6.89	6.89
New Orleans	210,000	81	—	19.75	6.17	7.41	—	9.88
District of Columbia	170,000	60	29	10.00	10.00	5.00	—	—
Cleveland	160,000	57	27	36.84	5.26	7.02	24.56	—
Pittsburgh	—	48	23	37.50	8.33	18.75	4.17	4.17
Milwaukee	127,000	35	13	28.57	8.57	28.57	—	—
Providence	101,500	48	19	35.42	8.33	16.67	13.75	—
New Haven	60,000	—	—	—	—	—	—	—
Charleston	57,000	27	9	—	3.70	—	—	—
Nashville	27,000	3	—	33.33	—	—	—	33.33
Lowell	53,300	13	7	11.11	16.67	5.56	5.56	—
Worcester	52,500	18	5	—	—	—	—	—
Cambridge	50,000	13	4	15.38	—	—	—	7.69
Fall River	48,500	20	15	35.00	—	5.00	30.00	—
Lawrence	38,200	12	10	41.67	—	25.00	8.33	—
Lynn	34,000	9	4	33.33	11.11	33.33	—	—
Springfield	31,500	12	—	33.33	—	25.00	—	—
New Bedford	27,000	14	4	28.57	14.28	28.57	—	—
Salem	26,400	9	2	22.22	11.11	22.22	—	—
Somerville	23,350	9	3	22.22	11.11	11.11	11.11	—
Chelsea	20,800	7	1	14.29	—	—	—	—
Taunton	20,200	6	—	—	—	—	—	—
Holyoke	18,200	7	2	42.86	—	14.29	28.57	—
Gloucester	17,100	3	2	33.33	—	33.33	—	—
Newton	17,100	6	2	—	—	—	—	—
Haverhill	15,300	7	2	—	28.57	—	—	—
Newburyport	13,500	5	1	—	—	—	—	—
Pittsfield	12,650	1	—	—	100.00	—	—	—
Fitchburg	12.500	4	—	25.00	—	—	—	—
Milford	9,800	4	—	—	25.00	—	—	—

Two thousand two hundred and forty eight deaths were reported: principal "zymotic" diseases (small-pox, measles, diphtheria and croup, diarrhœal diseases, whooping-cough, erysipelas, and fevers) 464, consumption 342, lung diseases 297, diphtheria and croup 237, scarlet fever 86, diarrhœal diseases 50, typhoid fever 25, malarial fevers 25, whooping-cough 20, measles eight, erysipelas eight, cerebro-spinal meningitis five, small-pox none. From *typhoid fever*, Philadelphia five, St. Louis and Pittsburgh four, Boston three, New York, Brooklyn, Chicago, Baltimore, Cincinnati, District of Columbia, Cleveland, Lawrence, and Springfield one. From *malarial fevers*, New York nine, Brooklyn and St. Louis four, Baltimore three, New Orleans two, Chicago, District of Columbia, and Cleveland one. From *whooping-cough*, New York six, Boston four, Brooklyn three, Philadelphia, Chicago, District of Columbia, Pittsburgh, Cambridge, Chelsea, and Fitchburg one. From *measles*, New York and Philadelphia four. From *erysipelas*, New York five, Chicago, Baltimore, and Cleveland one. From *cerebro-spinal meningitis*, New York three, Philadelphia and St.

Louis one. From *small-pox* none. Lung diseases, consumption, diphtheria, and whooping-cough were more fatal than in the previous week; typhoid fever much less so.

The meteorological record for the week in Boston was as follows: —

Date.	Barometer.	Thermometer.			Relative Humidity.				Direction of Wind.			Velocity of Wind.			State of Weather.[1]			Rainfall.	
	Mean.	Mean.	Maximum.	Minimum.	7 A. M.	2 P. M.	9 P. M.	Mean.	7 A. M.	2 P. M.	9 P. M.	7 A. M.	2 P. M.	9 P. M.	7 A. M.	2 P. M.	9 P. M.	Duration.	Amount in Inches.
Nov. 23	29.913	38	48	27	90	67	63	73	S	SW	W	4	15	12	R	F	F	—	.02
" 24	30.281	28	40	24	63	50	66	60	W	NW	W	10	18	2	C	C	C	—	—
" 25	30.105	39	50	24	69	59	46	67	S	SW	W	5	16	9	F	O	C	—	—
" 26	30.425	35	43	29	69	42	63	58	W	NW	W	7	10	5	C	C	F	—	—
" 27	30.402	37	40	29	67	72	82	74	W	Calm	SE	1	0	8	O	O	O	—	—
" 28	29.995	54	58	39	92	75	76	81	S	SW	SW	8	15	17	O	O	O	—	.01
" 29	29.761	41	58	30	100	62	59	74	S	W	W	4	20	28	R	O	F	—	.57
Week.	30.126	39						68		W		1587 miles.						15 hrs.	.60

[1] O., cloudy; C., clear; F., fair; G., fog; H., hazy; S., snow; R., rain; T., threatening.

For the week ending November 8th, in 147 German cities and towns, with an estimated population of 7,615,560, the death-rate was 22.8 against 22.2 of the previous week. Three thousand three hundred and forty-two deaths were reported: consumption 442, acute diseases of the respiratory organs 330, diarrhœal diseases 253, diphtheria and croup 168, whooping-cough 79, typhoid fever 68, scarlet fever 66, measles 40, puerperal fever 18, small-pox none. The death-rates ranged from 8.3 in Carlsruhe to 36.6 in Munich. Dresden 17.6; Berlin 21.7; Hamburg 28.2; Hanover 16.1; Cologne 19.7. Also for the same week Vienna 23.8; Paris 23.9.

For the week ending November 15th, in the 20 English cities, with an estimated population of 7,383,999, the death-rate was 22.8 against 22.1 of the previous week. Three thousand two hundred and twenty deaths were reported: diseases of the respiratory organs 401, scarlet fever 209, measles 122, whooping-cough 75, diarrhœa 70, fever 43, diphtheria 22, small-pox none The death-rates ranged from 16.8 in Sunderland to 26.2 in Leicester and Liverpool. London 23.2, Birmingham 18.8, Manchester 20.5, Leeds 25.6. Also for the same week, Dublin 30, Edinburgh and Glasgow 19. In Belgium diarrhœa, lung diseases, typhoid fever, small-pox, measles, and whooping cough were prevalent. In the Swiss towns, diarrhœa and lung diseases; only one death each from small-pox, diphtheria, whooping-cough, and typhoid fever having been reported in the twenty chief towns, and none from scarlet fever or measles.

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LIST OF MEDICAL OFFICERS OF THE U. S. NAVY, AND THEIR STATIONS, DECEMBER 1, 1879.

Surgeon-General, with the relative rank of Commodore. Philip S. Wales, Chief of Bureau of Medicine and Surgery.

With the relative rank of Captain. Lewis J. Williams, Naval Laboratory, New York. Marius Duvall, Special duty, Baltimore. Phineas J. Horwitz, Naval Asylum, Philadelphia Charles Martin, Naval Hospital, Norfolk. Francis M. Gunnell, Fleet Surgeon, Asiatic Fleet. James Suddards, Naval Hospital, Philadelphia. Edward Shippen, Special duty Philadelphia. Samuel F. Coues, Special duty, Boston, Mass. Jacob S. Dungan, Special duty, San Francisco, Cal. George Peck, member of Retiring Board. John M. Browne, Naval Hospital, Mare Island. Thomas J. Turner, Secretary National Board of Health. John Y. Taylor, Naval Hospital, Washington, D. C. William T. Hord, Naval Hospital, Chelsea, Mass. Albert L. Gihon, Naval Academy.

Medical Inspectors (15), with the relative rank of Commander. Richard C. Dean, Board of Inspection. Albert C. Gorgas, waiting orders. Delavan Bloodgood, Naval Hospital, New York. Thomas Walter Leach, Navy Yard, Boston, Mass. Benjamin F. Gibbs, Examining and Retiring Boards. David Kindleberger, on return to United States. William E. Taylor, waiting orders. Chris. J. Cleborne, Fleet Surgeon, North Atlantic Station. John C. Spear, Fleet Surgeon, European Station. Charles H. Burbank, Navy Yard, Portsmouth, N. H. Henry C. Nelson, Fleet Surgeon, P. Station. Somerset Robertson, waiting orders. Archibald C. Rhoades, Naval Hospital, Yokohama, Japan. Michael Bradley, Fleet Surgeon, South Pacific Station.

SURGEONS (50), with the relative rank of Lieutenant-Commander. Adrian Hudson, Assistant to Bureau of Medicine and Surgery. Newton L. Bates, member of Board of Examiners. Stephen D. Kennedy, Annapolis, Md., waiting orders. Edward S. Bogert, waiting orders. Walter K. Schofield, Stamford, Conn., waiting orders. Aaron S. Oberly, Torpedo Station, Newport, R. I. Grove S. Beardsley, Navy Yard, New York. James S. Knight, Michigan. Henry M. Wells, Ticonderoga. Edward S. Matthews, Lackawanna. John H. Clark, Receiving Ship Wabash. Adolph A. Hoehling, attending officers, Washington, D. C. Benjamin H. Kidder, New Hampshire. William K. Van Reypen, Alaska. Thomas C. Walton, Receiving Ship Franklin. Theoron Woolverton, U. S. S. Powhatan. Thomas Hiland, Navy Yard, Norfolk, Va. Charles H. White, Naval Hospital, Mare Island, California. George W. Woods, Navy Yard, Mare Island, Cal. Frank L. DuBois, Wyoming. George H. Cooke, Navy Yard, League Island, Pa. Thomas N. Penrose, Naval Hospital, Norfolk, Va. Samuel F. Shaw, Receiving Ship St. Louis. Joseph Hugg, Naval Hospital, Chelsea, Mass. George R. Brush, Receiving Ship Colorado. Edmund C. Ver Muelen, Naval Hospital, Philadelphia. Daniel McMurtrie, Quinnebaug. C. J. Stuart Wells, Navy Yard, Washington. Edward Kershner, U. S. S. Minnesota. J. Rufus Tryon, waiting orders. William H. Jones, Naval Hospital, New York. John W. Coles, U. S. S. Nipsic. James M. Flint, Enterprise. Goorge A. Bright, Tuscarora. William J. Simon, Alliance. George F. Winslow, U. S. S. Vandalia. Horatio M. Beaumont, Marion. Frederick M. Dearborne, U. S. S. Constitution. Hosea J. Babin, Marine Barracks, Brooklyn, N. Y. Jerome H. Kidder, Marine Barracks, Washington, D. C. Joseph B. Parker, U. S. S. Wachusett. Joseph G. Ayers, Naval Laboratory, New York.

SURGEONS, with the relative rank of Lieutenant. Abel F. Price, Monocacy. Henry Stewart, Naval Hospital, Pensacola, Fla. Melancthon L. Ruth, Naval Academy, Annapolis, Md. Michael C. Drennan, Naval Station, New London, Conn. James Albert Hawke, U. S. S. Constellation. Robert A. Marmion, U. S. S. Portsmouth. Benjamin S. Mackie, U. S. Marine Rendezvous, Philadelphia. Dwight Dickinson, Adams.

PASSED ASSISTANT SURGEONS (66), with the relative rank of Lieutenant. William A. Corwin, U. S. S. Kearsarge. Alfred M. Owen, U. S. S. Ashuelot. William G. Farewell, Coast Survey Steamer Hassler. Andrew M. Moore, waiting orders. John L. Neilson, Supply. Henry C. Eckstein, Naval Hospital, Philadelphia. George P. Bradley, waiting orders. Talleyrand D. Myers, Trenton. Theodore C. Heyl, Rio Bravo. Charles U. Gravatt, Naval Hospital, Norfolk, Va. John C. Wise. Howard Smith. John W. Ross, U. S. S. St. Mary's. Paul Fitzsimmons, Naval Hospital, Yokohama, Japan. Meredith D. Jones, waiting orders. Henry M. Martin, Navy Yard, League Island. S. Augustine Brown, Pensacola. William S. Dixon, waiting orders. Clarence E. Black, Store Ship Onward. Hampton Aulick, Naval Hospital, Mare Island. Homer L. Law, Ranger. Alex. F. Magruder, Saratoga. Charles A. Siegfried, Alert. Remus C. Persons, Coast Survey Steamer Blake. John F. Bransford, Richmond. Nelson McP. Ferebee, U. S. S. Jamestown. Henry P. Harvey, Receiving Ship, Washington, D. C. Benjamin F. Rogers, Coast Survey Steamer Gedney. James R. Waggener, Receiving Ship, Boston, Mass. Thomas H. Streets, Naval Hospital, Yokohama. Charles K. Yancey, sick leave. Manly H. Simons, Coast Survey Steamer Bache.

PASSED ASSISTANT SURGEONS, with the relative rank of Master. John C. Boyd, New Hampshire. George E. H. Harmon, Naval Academy. Howard Wells. James H. Gaines, U. S. S. Tennessee. Daniel N. Bertolette, U. S. S. Wyoming. Ezra Z. Derr, on leave. Frank B. Stephenson, U. S. S. Shenandoah. Charles H. H. Hall, Naval Hospital, Mare Island. Lucien G. Heneberger, Trenton. Presley M. Rixey, Tallapoosa. Walter A. McClurg, U. S. S. Tennessee. James M. Ambler, Arctic Steamer Jeannette. Cumberland G. Herndon, Palos. Robert Swan, U. S. S. Kearsarge. John Hancock Hall, Coast Survey Steamer Gedney. Richard A. Urquhart, Ticonderoga. John S. Bagg, waiting orders. Arthur C. Heffenger, Naval Hospital, Chelsea, Mass. Howard E. Ames, Navy Yard, Washington, D. C. Francis H. Terrill, Naval Laboratory, New York. David O. Lewis, Receiving Ship Independence. Ernest Norfleet, U. S. S. Wachusett. Edward H. Green, Naval Academy. Frank Anderson, Navy Yard, New York. Phillips S. Lovering, Training Ship Minnesota. Rufus H. McCarty, on leave. Robert Whiting, U. S. S. Constellation. George C. Lippincott, Bureau of Medicine and Surgery. John A. Tanner, Jr., Navy Yard, Boston, Mass. Lloyd B. Baldwin, Naval Hospital, Washington, D. C. Alvan A. Austin, Navy Yard, Norfolk, Va. Samuel W. Battle, Naval Hospital, Pensacola, Fla.

Assistant Surgeons, with the relative rank of Ensign. Charles T. Hibbett, Receiving Ship Franklin. Samuel H. Dickson, Naval Hospital, Norfolk, Va. John M. Steele, Naval Hospital, Philadelphia. Cunningham W. Deane, waiting orders. William R. DuBose, Naval Hospital, New York. Emlym H. Marsteller, Receiving Ship, Boston, Mass. Arthur G. Cabell, Pensacola. Nelson H. Drake, waiting orders. Henry G. Beyer, Receiving Ship, New York. Charles J. Nourse, Naval Hospital, Washington, D. C. Richard Ashbridge, waiting orders. James E. Gardner, Receiving Ship, Norfolk, Va. Millard H. Crawford, Receiving Ship, Mare Island, Cal. James C. Byrnes, Naval Hospital, Chelsea, Mass. George P. Lumsden, iron-clads, Brandon, Va. Frank C. Dale, waiting orders. William G. G. Wilson, Wyoming. George Arthur, Vandalia. William Henry Rush, Receiving Ship, League Island, Pa. Samuel F. Griffith, Alaska. Francis S. Nash, Lackawanna. James M. Murray, Quinnebaug. Clement Biddle, Richmond. D. M. Guiberas, U. S. S. Powhatan. C. H. Russell, U. S. S. Pensacola. H. T. Percy, Coast Survey Steamer McArthur. C. W. Rush, U. S. S. Marion.

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OFFICIAL LIST OF CHANGES OF STATIONS AND DUTIES OF OFFICERS OF THE MEDICAL DEPARTMENT U. S. ARMY, FROM NOVEMBER 29, 1879, TO DECEMBER 5, 1879.

Brown, H. E., captain and assistant surgeon. When relieved by Assistant Surgeon Middleton to report to the commanding officer, Fort Duncan, Texas, as post surgeon. S. O. 252, C. S., Department of Texas.

Taylor, M. K., captain and assistant surgeon. Granted leave of absence for one month, with permission to go beyond the limits of the department and apply for an extension of one month. S. O. 251, Department of Texas, November 28, 1879.

Cleary, P. J. A., captain and assistant surgeon. To report in person to the commanding general, Department of the East, for assignment to duty. S. O. 271, A. G. O., December 2, 1879.

Middleton, P., captain and assistant surgeon. Assigned to duty as post surgeon at post of San Antonio, Texas, and to relieve Assistant Surgeon M. K. Taylor as attending surgeon at department head-quarters. S. O. 252, Department of Texas, November 29, 1879.

Carvallo, C., captain and assistant surgeon. To accompany troops, ordered from Rawlins, to Fort Laramie, Wyoming Territory, and there take post. S. O. 109, Department of the Platte, November 29, 1879.

Elbrey, F. W., captain and assistant surgeon. Assigned to duty at Fort Bayard, New Mexico. S. O. 238, Department of the Missouri, November 28, 1879.

Hoff, J. V. R., captain and assistant surgeon. Granted leave of absence for one month, with permission to apply for an extension of two months. S. O. 270, A. G. O., December 1, 1879.

Comegys, E. T., first lieutenant and assistant surgeon. When relieved by Assistant Surgeon Brown to report as post surgeon to the commanding officer, post of San Diego, Texas. S. O. 252, C. S., Department of Texas.

Smith, R. E., first lieutenant and assistant surgeon. His resignation accepted by the president, to take effect April 1, 1880. S. O. 271, C. S., A. G. O.

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Boston Society for Medical Observation. — A regular meeting will be held Monday evening, December 15th, at eight o'clock, at the hall of the Medical Library Building 19 Boylston Place. Reader, Dr. Webber. Subject, Myelitis.

Frederick C. Shattuck, M. D., *Secretary.*

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A PARTIAL REVIEW OF TWO THOUSAND CASES OF MIDWIFERY.[1]

BY JAMES AYER, M. D.

The two thousand cases of midwifery which have occurred in my own practice commenced with the year 1839, and close with the present time. For the first twenty years I have no special notes or statistics except the numbers annually attended, and occasional notes of difficult and abnormal labor. I regret that I cannot present more exact data, it would so greatly enhance the value of this paper, and the only apology I have to offer is the fatigue and hurry incident to a busy professional life. From my imperfect data a table has been prepared of obstetrical cases since 1859, or the last twenty years. Previously the annual number was greater: —

Total number of cases from 1839 to 1879	2000
Total number of cases from 1859 to 1879	900

SINCE 1859.

Total number of boys noted	187
Total number of girls noted	159
	346
Still-born	42
Twins	3
Triplets	1
Acephalous infant	1
Intra-uterine amputation	1

PRESENTATIONS.

Face	3
Face and right arm	1
Shoulder	1
Arm	2
Breech	5
Foot	3
Placenta prævia	1
Cord	2

INSTRUMENTAL.

Forceps	35
Craniotomy	2

COMPLICATIONS.

Adherent placenta	2
Hour-glass contraction	1
Puerperal convulsions	4
Puerperal mania	2
Puerperal peritonitis	3
Hæmorrhage, general	2
Hæmorrhage, ante-partum	2
Hæmorrhage, post-partum	2

OF THE CHILD.

Cyanosis	2
Purpura hæmorrhagica	2
Spina bifida	1
Imperforate ani	3
Double hare-lip, with cleft palate	2

ABNORMALITY.

Umbilical cord 45 inches	1
Umbilical cord 36 inches	1
Umbilical cord eight inches	2
Hypertrophy of cord, excessive	1
Primipara forty-five years old	1
Seventeen years from last confinement	1
Many umbilical cords with single and double knots.	

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[1] Read before the Suffolk District Medical Society, March and April, 1879.

The sex of less than half the births is given; the cases of still-birth, abnormal presentations, and instrumental delivery are accurately noted; also diseases and accidents incident to the labors. Forty-one per cent. of the girls were born before the day of engagement, while only thirty-one per cent. of boys were born before the expected time. The average duration of labor in a large number of cases noted in hand-book was ten hours. The duration of labor in cases of foreigners was about the same as of Americans.

In the early part of my practice the prevailing fashion and desire among married women were to bear children and rear families. They possessed the courage, and were willing to suffer for such a boon. To be barren was considered among the Jews a curse of the Almighty, and many of our grandmothers cherished sentiments akin to this. *Tempora mutantur*, and what physician at the present day has not had occasion to hang his head for shame, and feel the strength of his moral indignation, at witnessing the apathy or positive dislike — to use no stronger term — with which the first faint cry of the new-born infant is received, I cannot say welcomed, by the friends, and perhaps the suffering mother! Such spectacles are far from agreeable to the faithful and weary physician, who has spent hours of patient and anxious waiting at the bedside of the sufferer. Fortunately, such cases are infrequent; true maternity is the rule. I have never known an Irish mother, no matter how poor, or how many little ragged children around her, that did not receive every new-born babe with emotions and expressions of gratitude, as a blessed gift from God. This sentiment, however rudely expressed, has never failed to win my admiration, and I take pleasure in pointing it out as the finest trait of Irish female character. Women, formerly, both in city and country, had a more vigorous physique, and were better qualified to bear the trials of the pregnant state and the pains of labor, than at the present day. Our civilization, with all its enervating influences, lies at the bottom of this deterioration. These varied causes have changed, to a considerable extent, the type of labor. Formerly an anæmic patient was an anomaly, and nervous exhaustion a condition almost unknown. These two classes are now the most frequent and dangerous we are called to encounter. A few words on the old methods of conducting labors. The length of a natural labor was limited to twenty-four hours; beyond this period it was considered tedious. Perhaps patience was more thoroughly exercised then than now. If ergot was occasionally given, delivery by forceps was extremely rare. Parturition was believed to be a purely natural process, not to be interfered with or hastened, except from the most urgent necessity. By this system of non-intervention delay was often occasioned, fatal to the infant, and perhaps injurious to the mother.

At a period earlier than my record, say fifty years ago or more, it was a common practice to allow the free use of ardent spirits in labor, increasing the doses as the pains grew stronger, so that at the point of delivery the patient became free from all care and oblivious of suffering. In my early practice I remember some practitioners who favored this treatment. This antedated the origin of teetotal and temperance societies.

In 1846 chloroform was used as an anæsthetic in labor, and the recommendation of Dr. Simpson was received as a guaranty of its safety. I employed it frequently, fifteen to thirty drops on a napkin, renewed occasionally. It was pleasant to the patient, and prompt in its relief. The accidents sometimes reported from the use of chloroform very soon led physicians to distrust its safety. Ether, of which the anæsthetic properties had already been discovered in Boston, and which had been successfully employed in surgical operations at the Massachusetts General Hospital, immediately took rank in midwifery as a safe and convenient anæsthetic. The medical profession, as well as the community, are justly proud of the great discovery, though puzzled in deciding to whom the honor belonged. Dr. J. C. Warren, one of the earliest and most distinguished surgeons of the Massachusetts Hospital, was represented as saying "that Jackson was the head, and Morton the hand," — a verdict generally adopted by the profession as fair and just.

In primiparæ I frequently administer ether in the early stage, if there is rigidity of the os uteri; otherwise not till the second stage is well advanced, and generally not till the expulsive pains. If the ether bottle be placed on the mantel, in sight of the patient, its effect is sufficient. It is a misfortune to etherize primiparæ early, as nervous and hysterical symptoms may be developed, greatly retarding the progress of labor. Dr. Channing, on the introduction of ether, employed it in all cases of labor, and records his success in his work on that subject.

The position of the patient in the second and third stages of labor I deem important. In the early stage she is allowed to walk about and amuse herself, submitting to an occasional examination. As dilatation advances, she takes to the bed, lying near its edge and on her left side. On the recurrence of pain the feet may be pressed, for support, against the foot-board or bed-post, and a sheet or towel attached to the same may be held by the patient's hands. The left-side position is the English and American custom; on the back is preferred by the French and Germans. When the woman is corpulent, with prominent or pendulous abdomen, I usually put her on the back. A rapid change in the character and frequency of the pains often follows, hastening delivery.

Nearly every form of dystocia recorded by authors has come under my care first or last, and I propose to mention some of them.

Powerless or lingering labor is one of the common forms. It may arise from contracted pelvic diameters, an anæmic or enfeebled condition, or a state of mental depression. Other examples arise from unknown causes in robust and apparently vigorous women. Peculiarities of labor also appear to be transmissible. "Like mother like daughter," is a proverb. When patience is exhausted, hot drinks and gin-sling are given; a drachm of fluid extract of ergot is often effective. I formerly used the freshly powdered ergot, and in a few instances had occasion to regret its violent action., Since the introduction of the fluid extract of ergot, I have always employed it, when indicated, with much benefit and no untoward results. Sometimes the forceps have been resorted to for the completion of a lingering labor.

Rigidity of the os uteri may always be apprehended in primiparæ advanced in years. Patience with careful manipulation often accomplishes dilatation. In the more obstinate cases a simple enema, securing an alvine discharge, may prove sufficient; or, still better, one or two grains of opium, or a hypodermic injection of morphia, may be resorted to, and is followed by sleep and speedy relaxation. If these remedies fail, an injection, per anum, of three to five grains tart. antimon. in a gill of tepid water secures a copious mucous secretion and rapid dilatation. One or all of these measures generally produce the desired result.

Nervous labors, in women of hysterical temperament, are usually vexatious and tedious; occasionally this class of patients pass through the ordeal bravely, and give but little trouble. They are inclined to false alarms, a source of much annoyance. The labor is marked by irregular contractions, and its progress is usually capricious. Leaving the sick-room for a little while and returning unexpectedly I have often found a successful dodge, causing a rapid change for the better. With such women the inhalation of ether has a much better effect than opium.

The catheter should be passed when needful. The parturient efforts are sometimes dominated by mental states or emotions. Illegitimate births are often difficult; the poor sufferer has few prospects to cheer, and little courage to sustain her.

Suspended Labor. — This term applies to cases where dilatation of the os uteri to the size of a quarter dollar, or greater, has existed for days, or perhaps weeks, without any marked progress. There is some uneasiness and slight pains, but the patient remains *in statu quo.* At length active contractions come on, and confinement is completed. One well-marked case is mentioned in my table, in which the os was dilated to the size of a silver dollar for two weeks before delivery, which resulted safely for mother and child. Other cases are recalled where the dilatation was less and the intervening time shorter.

Presentations. — It is all-important to learn the presentation at the earliest possible moment. This may frequently be done before the rupture of the membranes. In head presentations, by far the most frequent form, in my experience, is that of the anterior portion of the cranium to the left sacro-iliac synchrondrosis, occasionally to the right, sometimes to the left foramen ovale, and again to the right. Four cases of forehead to the pubes are noted in the table.

All these varieties rectify their positions as the head descends, except the last. With forehead to the pubes, there is want of adaptation to the pelvic diameters. The delivery is always tedious, though safe.

In head presentations with contracted pelvic diameters, or, what amounts practically to the same thing, a very large head, I have experienced much difficulty. Forceps have usually proved effectual. In one case mentioned in the table and another at an earlier period, craniotomy was resorted to.

Face presentations are fortunately rare, and difficult to conduct. Four cases are noted in the table, one of which required no special aid, as both the head and infant were small. The remaining three were delivered by forceps, one of which I will relate: On examination per vaginam the face was found well down, and the head very large. The physician first called had suddenly deserted the patient, and left her in care of the nurse. The forceps were immediately applied, but continued traction made no impression. I went home for my Baudelocque's long forceps. The blades were fitted, and I pulled with all my might, with frequent intervals of rest, for two long hours. At length a slight advance was realized, and soon delivery was accomplished. The child was still-born, and weighed twelve pounds. I remember to have employed in this case a contrivance suggested to me by the late J. W. Warren, of Harrison Avenue, namely a towel tied securely about the accoucheur's waist, to which a stout double cord is attached in front and made fast to the handles of the forceps. On the recurrence of pain, I would brace my feet and make forcible traction by leaning backwards. This gave rest to the weary hands and arms, and supplied the place of an assistant. The mother had ruptured perinæum and sphincter ani, both of which were carefully stitched, and the knees bound together. For months after she had little or no control of the alvine discharges. Afterwards she was sent to the Massachusetts General Hospital for a surgical operation, but left without relief, as she was too timid to submit to it. The rent, however, gradually cicatrized firmly, and the function of the rectum was fully restored. In subsequent labors not the slightest difficulty was experienced from the old injury.

Shoulder and arm presentations require similar treatment, and turning is the only available remedy. If the hand and arm early protrude through the partially dilated os uteri, the diagnosis is apparent. If the shoulder present, the diagnosis is difficult, if not impossible, until the parts are fully dilated. When labor is far enough advanced the hand and fore-arm of the accoucheur is introduced, and after much blind searching a foot is grasped, the direction of the heel being ascertained, and is brought downward and forward. The second foot always follows the first, and delivery is effected as a footling case. Delivery of the head is the only remaining difficulty. Traction by a finger in the child's mouth, with conjoined pressure over the uterus, has usually proved sufficient; if not, a single blade of the forceps, introduced and employed as a vectis, has never failed me. When turning has been employed, after the evacuation of the waters, a condition in all my cases, the contractions are strong, and impede, if not prevent, all progress. I have kept the patient under ether, and diminished the difficulty. Before the discovery of anæsthetics the relaxation was partially attained by full venesection and the exhibition of tartarized antimony.

Denman observed that the arm and shoulder sometimes receded, and breech descended into the pelvis by what he called "spontaneous evolution of the fœtus." This theory was more fully explained by Dr. Douglass, of Dublin, and afterwards confirmed by Dr. Gooch. I have never witnessed this happy change. This presentation, it is claimed, is sometimes changed by the process of conjoined bimanual manipulation. I have made attempts, but never succeeded in the efforts.

Breech presentations are next to those of the head in safety; there is usually delay in the passage of the hips, but the chief trouble is in the safe delivery of the head. The waters often break early when the breech is high up, and then the diagnosis is difficult; the pelvic bones of the fœtus and also the nates may be distinguished, but the stain of meconium on the attendant's finger is the surest sign. The birth of the hips is usually slow, but may be aided by gentle traction of the body. The fœtal arms can be withdrawn by pushing up the finger over the shoulder and making traction. When all but the head has passed, at the first possible moment I put the forefinger into the child's mouth, allow the air to enter by depressing the jaw, and at the same time employ moderate tractive force. If the child gulp or cry in this position I feel sure of its life. If the head be large and the pains unreliable, as they generally are at this stage, there is imminent danger to the child from suspension. This I have always found to be the great risk of breech presentation. Immediately I pass up the vectis or a single blade of the forceps, and move slightly the position of the head, and make forcible traction, and never failed of prompt success, and without serious contusion of the soft parts of the mother. A compound presentation of the right hand and arm with the face is noted in the table. This was a difficult case to manage, and required the use of forceps after trying efforts in vain to restore the prolapsed member. Other cases come to mind where a hand presented with the head and was successfully restored, and instantly the head entirely filled the passage and presented no further difficulty. Great caution is requisite in the restoration of the protruding parts, lest the head recede, and a presentation of the upper extremity result.

In two cases recorded the elbow of the child, in natural labor, was firmly braced against the pubes of the mother. This prevented the descent of the head; indeed, progress was at a stand-still, though the pains were vigorous, and no reason could be assigned for the delay. There was evidently an obstacle, but I could not detect it till after the passage of the head, when the elbow was found to have been firmly braced, forming a solid prop. This is a complication I do not remember to have seen noticed by any author.

Prolapse of the cord is a complication of repeated occurrence in my practice, though two cases only are recorded in the table. Such cases have proved unfortunate in results. When the cord falls at an early stage of the labor, I have resorted to taxis for its reposition, and the patient is placed in the elbow-and-knee position. While this posture is maintained all is well, but soon it becomes irksome and fatiguing, so that few women can be urged to continued it till the head descends sufficiently to close the pelvic cavity, and so prevent further prolapse. A variety of contrivances have been resorted to for the purpose of supporting the cord *in situ*, for example, double flexible catheters with tapes. The cord is always long in such instances. In a few cases I have succeeded in saving the child, but more frequently it has been still-born.

Placenta Prœvia. — I had never seen a case of this complication till called to Mrs. W. G. T., a primipara, twenty-five years old, and formerly a surgical nurse in the Massachusetts General Hospital, July 19, 1874. I had visited her for a week before confinement, and prescribed for a moderate uterine hæmorrhage fluid extract of ergot, acidulated drinks, and rest. Afterwards, on examination, the os uteri was found patulous simply, and the bleeding continued for a week. Placenta prævia was apprehended. On the morning of July 29th I was called at four o'clock, and found the patient with moderate pains and bleeding more freely. The os was dilated to the size of a quarter dollar, but the finger could penetrate but slightly ; a spongy mass obstructed the passage. No edge could be felt, and little room for exploration. After a few hours the os was distended to the size of a silver dollar. By persistent pressure the finger was pushed through the placental mass and the opening gradually enlarged, and the substance, as far as possible, separated from the uterine walls. At length the placental edge could be plainly felt, and when the rent was sufficiently long the torn edges were turned back. At every pain the bag of waters was prominent, and protruded through the artificial opening. Fortunately, as the labor advanced the pains became vigorous and regular, and the hæmorrhage diminished. At three P. M. the membranes were ruptured, and a large quantity of fluid was evacuated. As progress was slow and the patient somewhat exhausted, — though freely supported by food and stimulants, — at four o'clock I applied the forceps. The head presented, and the delivery of a still-born child was soon accomplished. The placenta soon followed, and on inspection was found to be of good size, the cord attached on one side the centre, and the rent was four inches long from near the centre and outwards through the edge. Slight hæmorrhage followed delivery, but otherwise no serious symptoms, and the woman made a good recovery.

Adherent Placenta. — Two instances of this complication are noted in the table, and both in the same mother: the first occurred in 1867, and the last in 1874. In the first the presentation was natural and delivery favorable. On making abdominal pressure and waiting a little the placenta did not come; on pulling the cord gently it appeared to be attached to something solid. By passing up the hand, the placenta could be touched, but not grasped. At the edge it was adherent, and it was difficult to insinuate the finger nail between it and the uterine wall. After much picking it was slightly started. Constant peeling made slow progress, with much pain to the mother and slight hæmorrhage. By continuing these efforts more than two hours, the entire placenta was at last detached and removed. The suffering and loss of blood quite overpowered the patient. On inspection the placental mass presented a degenerated condition, studded throughout with calcareous deposits. Uterine inflammation supervened, which yielded to medication in two weeks, and mother and child did well.

In 1874 the same lady was again confined, and experienced a similar difficulty, but the placenta was not so thoroughly adherent as before, and no serious results followed.

Hour-Glass Contraction. — A single instance of this rare complication is noted in the table, though another case, many years ago, is well remembered. There are some forms of irregular contraction of the uterus that are difficult to distinguish from the true hour-glass; yet after a physician has once managed a true case he will never afterwards be left in doubt. The circular fibres of the uterus are so perfectly contracted below the placental mass, usually confined at the fundus, that the two halves of the uterine cavity are completely divided, with a connecting passage sufficient only for the umbilical cord. All approach to the placenta at first seems impossible. The point of the finger is at length insinuated into the stricture, afterward a second finger, and finally the whole hand is pushed through, and, grasping the placenta with much difficulty, draws it away.

In one instance I employed ether in aid of the operation; in the other, simple dilatation was sufficient. The process is a tedious and painful one, and requires patience.

The irregular contractions are much more frequent, and are apt to follow the use of ergot. The occlusion is only partial, and may readily be overcome by effort or the aid of ether.

Instrumental Delivery. — In my early practice the forceps were rarely employed in delivery; within the last thirty years the frequency of their use has more than quadrupled. The idea of horror and fatality was associated in the minds of women with the name of instruments. This is altogether different from what exists at present. The old-fashioned natural labors were longer in duration and more tedious than at the present day. In shortening this protracted suffering by artificial help, obstetric authorities of the present time show their superiority to the wisdom of the fathers. For many years of my early practice I was not the owner of a set of obstetrical instruments, and had little occasion to call in the aid of others to employ them. I doubt not it would have been better in some cases for mother or child had I used them. I gradually grew into their favor in city practice, occasionally meeting cases of difficulty; and I look back to the adoption of their use with great satisfaction. It is difficult to lay down definite rules for the use of the forceps. The recent teachings of Mr. Barnes, the distinguished English obstetrician, are as near perfect as any that have ever been published. The judgment of the medical attendant, founded on his varied experiences, must be his guide in individual cases, not only in selecting the proper subject, but the fortunate moment for interference. The safety of the mother is the first consideration, that of the infant is second. These indications are frequently antagonistic, but are sometimes coincident.

When convulsions threaten, or actually occur, the rule is to deliver as rapidly as possible, and this prompt remedy may fail to stop them. In cases of ante-partum hæmorrhage the patient getting exhausted, or where the pains are inefficient and both mother and child are imperiled by delay, instrumental aid becomes a necessity. Again, the pelvic diameters are narrow, and the uterine efforts are insufficient to expel the head; in a few moments moderate traction by forceps overcomes the difficulty. In all such examples, and many others which might be cited, patients and resources alike are exhausted; we then turn gladly to the forceps for relief. As to the precise time when instrumental aid should be resorted to, the judgment of every practitioner must be the guide. In natural labor, the soft parts well dilated and the head fairly down, continued pains have produced no sensible progress for four consecutive hours, and perhaps a falling off in strength and courage of the patient; then I gently but forcibly hint the propriety of using forceps.

A word in regard to the proper position for the operation. My custom is to place the woman on the left side, near the edge of the bed. By passing up one or two fingers of the left hand under the side of the child's head, and pushing the perinæum well back, the male blade of the forceps is gently though firmly pushed downwards along the inside of the fingers till the head is passed. The handle is then held firmly by the assistant or nurse. The female blade is then passed upward and anterior to the first. To avoid embarrassment in passing the second blade, the patient's hips should well overhang the edge of the bed; otherwise there cannot be free play for the handles. When in position the two handles may be brought together, using caution not to pinch the soft parts, then to be securely locked, and nothing now remains but to apply the extractive force.

The lithotomy position, or that on the back, derived from the custom the French and Germans, is much in vogue at present. I do not condemn it, but the side position has always done well with me, and I like it. By unlocking the forceps at the point when the head distends the perinæum and is about to emerge, and withdrawing the blades singly and gently, perineal rupture may be avoided. But if, unfortunately, rupture should occur, a few sutures or the application of two or three serres-fines and binding the woman's knees together will soon repair the damage.

(*To be concluded.*)

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PUERPERAL CONVULSIONS.[1]

BY HOWLAND HOLMES, M. D.

SEARCHING for the cause of eclampsia gravidarum et parturientium, in 1841 Professor Simpson, of Edinburgh, and others pointed at albuminuria, and when, in 1843, Dr. Lever said *Eureka*, his co-workers hailed the discovery for a time with admiration and faith, which have gradually grown less to the present time. Dr. Lever thought the convulsions the result of uræmic poisoning, the evidence of which was the albuminous condition of the urine, which he invariably found in this disorder. He furthermore held that pressure of the fœtus impaired the free or normal action of the kidneys, causing albuminuria, and he adhered to this view to the last.

The theory of Dr. Lever, substantially, has probably been the predominant one entertained and acted upon ever since. Just previous to and simultaneously with this were the theories of anæmia and hyperæmia of arterial cerebral congestion held by some, and venous cerebral congestion by others, with many recorded and traditionary vagaries. A vast amount of labor and ingenuity has been expended in setting forth these causes and classifying them into predisposing and exciting causes, but it is sufficient for our purpose to say that *pregnancy*, with all the altered conditions of the system incident to it, is the chief predisposing cause. And here, strangely enough, I would remark in passing, the best writers are unsettled to-day whether the convulsions are caused by the albuminuria, or the albuminuria is caused by the convulsions. Here, then, is a field for our labor. Let us each and all help settle the question which is cause and which is effect. To explain, directly after the convulsion there is acute, desquamative nephritis: did the convulsion produce this state of the kidney, or was this state of the kidney anterior to the convulsion, and the cause of it? Prominent gynæcologists may be found to support each side of the question.

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[1] Read before the Middlesex South District Medical Society, April 16, 1879.

The convulsions, as I shall have occasion to state farther on, are epileptiform in character, and it is therefore claimed by some that acute nephritis, albuminuria, etc., must be a necessary sequence of an ordinary epileptic fit in either sex. This, gentlemen, affords us another opportunity to assist in settling this point by carefully examining the urine of our epileptic patients both before and after the fit. A frequent and careful examination of both the urine and the blood in the later months of pregnancy and directly after parturition would do much in aid of answering the question whether there is more than a normal amount of urea circulating in the blood, or whether there is albuminuria in all cases of convulsions and prior to them.

It was a well-recognized fact that in chronic forms of Bright's disease uræmia existed, and the frequent occurrence of convulsions in that disease were due to toxæmia, resulting from the retention of urea in the blood. While Frerichs, Braun, and others substantially supported this view, the former modified it so far that he held that the true toxic element was not urea as such, but carbonate of ammonia, resulting from its decomposition. Here, again, has been expended much patient investigation and learned research to settle this question.

About 1861 Dr. Hammond, of Maryland, and other eminent men, after much experimentation, would not concede that urea ever was changed to carbonate of ammonia in the blood. In 1870 Spiegelberg, after experiments on human and canine subjects, supported the theory of Frerichs, while Barnes and others believe that eclampsia may be due not to urea, nor the products of its decomposition, but to other poisonous irritants or excrementitious matters not cognizable to the chemist. Playfair, whose beautiful system of midwifery is familiar to most of you, says it is highly probable that in some cases convulsions and albuminuria are produced by the same cause, and appear simultaneously.

While it is generally conceded that puerperal convulsions are preceded by albuminuria, and that the two are always combined, some assert that eclampsia now and then occurs, though very rarely, without albuminuria, or rather previous to it; first the convulsion, then albuminuria. Braxton Hicks is one of the chief supporters of this view, and is quoted by Playfair. Hicks reported four cases about a dozen years ago, which were published in the eighth volume of Obstetrical Transactions in London; but on examination I find he had seen only two of them personally and in consultation, while the other two were reported to him; and if they were observed as poorly as they are reported, they are not entitled to much reliance. But the two seen by Hicks are far from being conclusive in my mind. Cazeaux had heard of but six cases, all of which, he says, can be satisfactorily set aside. This, then, is a question to be kept distinctly in mind, and answered by our future observation and experience: whether convulsions *ever* precede albuminaria in any fairly and accurately observed case. My personal belief is that none such exist. The views of Hicks led him to say, "The nearly simultaneous appearance of albuminuria and convulsions must then be explained in one of three ways: First, that the convulsions are the cause of the nephritis. Secondly, that the convulsions and the nephritis are produced by the same cause; for example, some detrimental ingredient circulating in the blood, irritating both the cerebro-spinal system and other organs at the same time. Thirdly, that the highly congested state of the venous system, induced by the spasm of the glottis in eclampsia, is able to produce the kidney complication."

As none of the theories thus far advanced would satisfactorily explain all the cases that presented, Traube and Rosenstein have assigned acute cerebral anæmia as the cause of eclampsia. In parturient women the blood is ordinarily hydræmic, and when there is albumen the watery condition of the blood is greatly intensified. Accompanying this condition of the blood and the patient, hypertrophy of the heart is said to be normal, and as a result of these combined states is a temporary hyperæmia, which is rapidly succeeded by serous effusion into the cerebral tissues, resulting in pressure on its minute vessels and consequent anæmia. Kussmaul and Tenner have shown more recently the dependence of convulsions on cerebral anæmia, and Brown-Séquard that an anæmic condition of the nerve centres precedes an epileptic attack.

Nearly all of these fine theories call in to their aid the energetic pains of labor as a factor in the causation of convulsions, and, theoretically, they would explain very satisfactorily how the occurrence of labor should intensify the convulsions, since during the acme of the pains the tension of the cerebral arterial system is necessarily greatly increased. But, unfortunately, the convulsions nearly as often occur some hours after the labor is ended. I have not taken pains to procure statistics to show the relative frequency of ante-partum and post-partum convulsions, but the latter are not rare. Moreover, these theories utterly fail to account for the cases which are preceded by well-marked precursory symptoms, and in which an abundance of albumen is present in the urine. Here the premonitory signs are precisely those which precede the development of uræmia in chronic Bright's disease.

If you have thus far been able to follow me while I have so hurriedly and imperfectly passed in review many of the theories of the ætiology and pathology of the disease entertained by the best practitioners and writers during the last forty years, I would like to say here that in order to have our future observations and investigations of any value, we must all stand on the same platform and have the disease now under consideration so sharply defined as to be in the focus of observation, and exclude all others. In other words, some writers have hitherto unquestionably included cases of hysteria, epilepsy, and even apoplexy in their list of puerperal convulsions. Playfair says, "In most obstetric works it has been customary to describe three distinct classes of convulsions: the epileptic, the hysterical, and the apoplectic." But a parturient woman, either before or after delivery, may suffer from hysterical paroxysms, or she may be attacked with apoplexy accompanied with coma and followed by paralysis or death. But these conditions are identical with the same diseases in females not bearing children, and are in no way special in their nature. In true eclampsia the paroxysms are always epileptiform, and are essentially the same in appearance as those of an ordinary epileptic fit, but their clinical history is different. It is true that the premonitory symptoms of an attack are rarely heeded either by physician or attendants, and consequently the whole house is suddenly startled by the unexpected paroxysm. Nevertheless, there are precursory indications which should be kept constantly in mind by the obstetrician, the most common of which are *severe* headache, transient attacks of giddiness, confusion of thought, impairment of sight, disjointed remarks, and these symptoms, especially when coupled with œdema of the face or upper extremities, are always ominous. Convulsions with these symptoms, attended also with albuminous urine, may unhesitatingly be pronounced *puerperal.*

The attack is sudden. The eyes turn obliquely up under the lids, and the head slowly rotates in the same direction; the countenance is terribly distorted, and assumes a horrible expression; the mouth froths, which is soon tinged with blood, unless the tongue be promptly protected. The face soon becomes livid and frightfully altered; the veins of the head and neck are full, hard, and enlarged; and the patient struggles, shudders, and quivers till the paroxysm subsides. This state of things is sufficient to call into requisition all the physician's resources, even when he is not distracted by the incessant inquiries and exclamations of friends; but the whole household is wild with excitement, and all ask questions and want categorical answers; there is no opportunity to deliberate. As any of us are liable to be called to such a case before we sleep, it is well to carefully consider and determine our course of procedure in advance. To assist us in this, allow me to give the minutes of the last case that came under my notice: —

July 25, 1876, at four o'clock, P. M., I was called in haste to Mrs. W., thirty-two years of age, who, with but thirty minutes' sickness, had surprised herself and friends by giving birth to a child, a girl, weighing six pounds. With gentle traction at the cord I removed the placenta, and soon had the mother and child very comfortable. Mrs. W. had borne two children previously, and had been attended in both instances by a physician in a neighboring town, where she then lived, whom she had engaged to be with her in this confinement, but she was surprised, and had no time to send for him. She confessed to having had some slight twinges of pain for eight hours before the child was born, but did not think she was in labor, and ate and exercised with the rest of the family. Although her delivery was sudden and without an attendant, there was no laceration of the perinæum, and the patient laughed more than once during this interview at the surprise her sudden accouchement had given herself and all her friends, and I left her between four and five P. M. in the best of spirits and perfectly comfortable. That night between twelve and one o'clock, July 26th, I was called to see her in a fit. When I arrived the convulsion had ceased; she was conscious, but her head felt unpleasantly, and so did her chest from her stomach to her pharynx. She had suffered thus for an hour or more previous to the fit, but from the description by herself and attendants I supposed the fit might be hysterical, treated it as such, and returned to my rest. But I had hardly reached my bed when she had another fit, and I was called again. This convulsion had also subsided, and her consciousness had returned when I reached her the second time. I still thought her trouble might be hysterical, and gave her a liberal dose of morphia, and myself the lounge to await the result.

Her first fit was at 12.30 A. M., her second at two o'clock, A. M., and at 3.40 A. M. she had the third fit, which was the first I saw, and which satisfied me I had something to contend with more than hysteria. From this time she neither swallowed nor was conscious, but lay constantly in a comatose condition. Her former physician, Dr. Willis, of Waltham, saw her in consultation, and at 4.50 A. M. she had another fit. Dr. Willis administered one fourth grain of morphia hypodermically, took urine by catheter, and found it highly albuminous. She had a fit at 5.30 A. M. and at 6.30 A. M., after which we decided to keep her under the influence of ether. At this time her pulse varied from 90 to 96, and was slightly intermittent. I administered the ether myself, and from her profoundly comatose state between the convulsions it was not easy to determine when she had inhaled just the right quantity. She did not now move a voluntary muscle between the convulsions, which took place at 8.30 A. M., at 10.45 A. M., at 12.30 P. M., and at two o'clock, P. M., when she had her tenth and last fit. Her respiration during these convulsions was of course spasmodic, and more or less stertorous all the time. The severity of the last convulsion, with her cyanotic and exhausted condition, satisfied me she could not survive another such fit. Her friends were telegraphed, and her energies seemed to be sinking. The muscles of the neck were rigid, and drew the head backwards; there was opisthotonos, as in well-marked tetanus. During her first convulsions she had bitten her tongue badly, and during the subsequent ones frothy mucus tinged with blood escaped from her mouth, into one side of which I crowded a thickly folded napkin, to guard against any further injury to the tongue.

I ceased to give her ether at a quarter past three o'clock, P. M. At this time she was in a profoundly comatose condition. Her breathing for some time previous had been growing shorter and more thoracic. Her eyes had no expression of life; her face grew more and more livid or cyanotic; her feet, hands, and arms, which had been dusky for some hours, seemed to be taking a deeper hue; and the blood under her finger nails was a dark purple.

Dr. Willis saw her again with me about four o'clock, P. M., and after remaining with her an hour we agreed that she was in a moribund condition, and that we could probably be of no further service to her, and we retired. I called three hours later in the evening, found her living, and her hands a trifle less dusky; other appearances the same. Early in the morning, July 27th, I called again, and learned she had swallowed in the course of the night, and then I satisfied myself that she would sip tea from a spoon and swallow it.

From this time she rallied, and is now perfectly well. Her recovery was very gradual; her consciousness did not fully return for nearly a week. For several days she lay with her eyes closed, and for two days they appeared to be covered with a film, and looked like the eyes of a person deceased. Her evacuations were passed unconsciously for four days, but each successive day showed an improvement on her previous condition till August 5th, the twelfth day after her confinement, when she suddenly had *puerperal mania*, imagining all sorts of things, especially that she had taken something which she ought not to, and that she should die that night, etc. She persistently declined to swallow anything for some hours, took her leave of all the family, etc., but in the morning following she was calm and herself again.

Her previous two labors had been of the ordinary type, and she had nursed her two children; but after this confinement there was no secretion of milk whatever. During her convalescence there was nothing peculiar in her treatment; for diet she at first had brandy and milk, afterwards milk without the brandy, then broth, beef tea, etc. She took but little medicine, chiefly bromide of potassium, sweet spirits of nitre, with now and then a Dover's powder, and finally the muriated tincture of iron.

Many of you may recall the case reported in the Boston Medical and Surgical Journal, March 13, 1879, by Dr. O. W. Doe, of Boston, in one or two respects not very unlike my own. The convulsions were post partum, occurring six hours after delivery instead of nine hours, as in my case. The patient was thirty years of age, the wife of a physician who lived in Boston, and in a few minutes had at her bedside several of the best obstetricians in Massachusetts, if not in New England. She "had a very severe convulsion lasting fully fifteen minutes." Dr. Calvin Ellis, being called, administered ether. Dr. George H. Lyman arrived a few minutes later, and gave half a grain of morphine hypodermically. Dr. Francis Minot, coming soon aftarwards, indorsed the treatment, and advised the continuation of morphia *pro re natâ*, and suggested chloral per rectum, which was subsequently given. Still later, enemata, elaterium, croton oil, blood-letting, hot-air bath, and pilocarpine were in turn resorted to, and in less than eleven hours the patient took ether (the quantity not known to the writer, nor the manner of taking it); of morphia hypodermically one half grain, one fourth grain twice, and by the mouth one fifth grain; of chloral twenty grains per rectum; four enemata — one of soap-suds and sweet oil, one of soap-suds, sweet oil, and turpentine, which was repeated, and one turpentine enema with two drops of croton oil, and one drop upon the tongue; four one-fourth-grain doses of elaterium in butter placed on the tongue; venesection from the right arm resulted in the abstraction of one pint of blood. The hot-air bath was administered by Dr. Bradford. Muriate of pilocarpine one sixth grain was given hypodermically, and repeated.

The treatment in this case is entitled to our very careful consideration. It is the most recent treatment we have for our guidance, and most assuredly it is not what we know as "expectant" treatment. And if some of us regard it as "heroic," *very heroic*, we must bear in mind the source from which it emanates. This patient made a complete recovery; but had she died, and had we been called upon to give our verdict as to the cause of death, we might have found it embarrassing to decide whether she died of the disease or of the treatment.

But I wish you particularly to note the *blood-letting*. A few minutes before it the pulse was 108, respiration 14, and the report says: "10.15 A. M., face remained markedly cyanotic. Bled to the extent of a pint from the right arm by Dr. Minot. Pulse 104 directly after the operation. 11.35 A. M., countenance as livid as before the operation." So we see that an hour and twenty minutes after venesection the countenance is not improved, and the pulse only four beats less than before it.

Twenty or thirty years ago there was a publication in England called the *London Lancet*, and in the pocket of every surgeon and physician was a surgical instrument by the same name; and this instrument was used on nearly all occasions, nor has it become entirely obsolete yet. Even Playfair, from whom I have several times quoted, approvingly says: "Until quite recently venesection was regarded as the sheet-anchor in the treatment, and blood was always removed copiously, and there is sufficient reason to believe, with occasional remarkable benefit. . . . . But while the effects of venesection have been so lauded by certain authors, the mortality has admittedly been lessened since its indiscriminate use has been abandoned."

Dr. Fordyce Barker states that in 1855 the mortality was thirty-two per cent., but has now fallen to fourteen per cent. Against his better judgment the physician is sometimes impelled to practice some bold, decisive, and *observable* treatment to satisfy the impatient and irrepressible anxiety of relatives. Until the pathology of the disease is more accurately known, can we do better than to protect the patient's tongue by placing a pine stick or folded napkin between the teeth, give ether or chloroform, supplemented by bromide of potassium, chloral, or morphia?

PROCEEDINGS OF THE BOSTON SOCIETY FOR MEDICAL IMPROVEMENT.

E. G. CUTLER, M. D., SECRETARY.

February, June, and September, 1879. *Uræmic Apoplexy.* — Reported by Dr. Minot. A gentleman between fifty-five and sixty years of age, single, was brought to the Massachusetts General Hospital, January 28, 1879, in an unconscious condition. The history, obtained from the friends, was that he had fallen on the stairs five weeks previously, striking on the temple, and had complained of headache afterwards, but was able to attend to his business. His habits were perfectly good. On the morning of his entrance he was found in his bed unconscious, with stertorous breathing, pupils normal, unable to swallow, the head drawn to the left, the right arm and leg paralyzed, and the face flushed. A cicatrix on the right side of the tongue near the tip was noticed, which was not recent. On the 29th it was observed that there was some movement in the right leg, and occasionally in the right arm, and that the left eye was more open than the right. The head was turned to the left side. Micturition and defæcation were involuntary; the temporal arteries were seen to pulsate strongly; the inspirations were 32 in the minute, and were stertorous. On the morning of the 30th, two hours before death, he was suddenly seized with an epileptic fit, lasting two or three minutes, which was succeeded by another an hour later. The urine was acid, specific gravity 1032, and contained considerable albumen, with hyaline and finely granular casts. The temperature on the evening of his entrance was 100.2° F.; on the morning of the 29th, 100.8° F. (taken in the axilla); evening of the 29th, 102.6° F.; morning of the 30th, 100.3° F.; at death, 100.8° F. (the last three taken in the rectum).

Autopsy. January 31st. *Brain.* There was a thickening and œdematous condition of the pia mater over the convexities, and a small cyst of the size of a grape seed in the right ventricular nucleus. The *kidneys* were both diminished to about one half the normal size; the capsules were readily detached, leaving a wrinkled and depressed surface from loss of substance. On section they presented a reddish-gray color, the cortex was much diminished in area, and the pyramids were also atrophied. The *liver* was symmetrically atrophied, weighing somewhat less than two pounds; its density and color were normal. There was hypertrophy of the left ventricle of the *heart.*

The case was interesting from a diagnostic point of view. There was no smell of alcohol in the breath, and no reason existed for believing that the patient was drunk. The low temperature and the examination of the urine showed that the case was one of uræmia.

Large Effusion of Blood into the Left Hemisphere and Lateral Ventricle; Immediate and Continued Unconsciousness without Localized Paralysis; Continued and Marked Rise of Temperature. — DR. ELLIS reported the case. On January 30, 1879, a man fifty-six years old, who had previously enjoyed good health, suddenly fell in the street, immediately became unconscious, and in that condition was brought to the Massachusetts General Hospital. When seen, the respiration was slow and full. The pulse was 64, and of good strength. The pupils were normal. All parts of the body were warm. The urine was passed involuntarily just after entrance. Passage of the catheter made him move both legs and arms with considerable strength. On giving him milk he became slightly conscious and took it readily, but soon vomited it. No marked change was noticed during the next twenty-four hours. There was much restless movement in bed, and the urine continued to dribble away from the bladder as fast as it entered it. Early in the morning of February 1st he became unable to swallow, and the milk ran from his mouth. Respiration got to be more stertorous. He turned his eyes towards people entering the room, but could not be roused even by shouting. In the afternoon paralysis of the right arm and leg was noticed. The head was drawn to the left, and the mouth twitched spasmodically on the left side at times. He continued in this state till the next forenoon, February 2d, when he died. The urine was not examined, owing to the inability to get enough to do so.

During this time the temperature rose steadily. Beginning at 98 F., when he entered the hospital, it was normal in the evening; 99° F. in the morning of the 31st, 100° F. in the evening; 101° F. on the following morning, 104° F. in the evening; 104⅘° F. on the morning of February 2d, and 106½° F. just before death, the rise being very rapid.

The pulse on the evening of the first day was 64, fell to 56 the next morning, rose again to 60 in the evening, then fell to 58 on the morning of February 1st, and from that point rose rapidly to 120 in the evening. The respiration was about 20 from the time of entrance till the morning of the last day, when it began to rise, and in the evening was 30.

Autopsy. The surface of the pia mater was remarkably dry. The cerebral convolutions were flattened; the veins of the pia were moderately full. The arteries at the base of the brain were thickened and stiffened by numerous atheromatous formations. The left lateral ventricle contained a dark-red, recent coagulum of the size of a pullet's egg and a little fluid blood, some of which was also found in the third and fourth ventricles. The inner surface of the greater part of the left lateral ventricle outside of the corpus striatum and optic thalamus had a roughened, lacerated look, attributable, apparently, to the fact that blood had been first effused into the substance of the brain, cutting away the external portions of both the thalamus and corpus striatum. The lining membrane of the ventricle being then ruptured, the lacerated tissue appeared as a part of the floor of the ventricle. Nothing unusual was noticed about the right lateral ventricle. In the gray matter of the convolutions of the left side and in the left ventricular nucleus about six miliary aneurisms were found, but no point from which the blood had escaped. Nothing else of special interest was observed.

When the patient was first seen there was no localized paralysis, while all parts of the body were moved, but feebly. Though not entirely unconscious, the signs of realizing what was said or done about him were so slight that they might have been automatic. The difficulty in making the diagnosis lay in the absence of any symptoms for analysis. It was clear that the brain was seriously affected, and obvious that the whole nervous system had received a violent shock, as shown by the steady rise of the temperature, the partial immobility, and the dribbling of the urine, caused by the relaxation of the sphincter. The condition was such as might follow hæmorrhage beneath the pia mater, or in rare instances into the substance of the brain itself. When the paralysis of the right side was noticed, just before the patient's death, hæmorrhage into the left hemisphere was at once made probable.

Strangulated Hernia unattended by the Usual Characteristic Symptoms; Autopsy. — Dr. Nichols related the case, which illustrated the importance not only of making inquiry as to the presence of hernia whenever there exists a disturbance of the abdominal viscera, but also of examining carefully the ordinary seats of hernia. Mrs. S., aged sixty-seven, rather corpulent, had been subject for several years to attacks of abdominal colic, but in other respects had enjoyed good health, and was not conscious of the existence of any tumor, hernia, or other local disorder. The bowels had been evacuated the previous day. On the 26th of May, 1879, she experienced some nausea during the forenoon, but ate a moderate dinner. Soon after violent pain came on at the pit of the stomach, attended with nausea, which disappeared, however, in a measure after a hot foot-bath had been taken. At nine P. M. she took, by the advice of her son, two thirds of a teaspoonful of saleratus in a glass of water. Violent retching and vomiting ensued, which continued throughout the night at intervals of every ten or fifteen minutes, and up to the time of Dr. Nichols's first visit, about one o'clock in the afternoon of the 27th. She was found at that time in bed, with a distressed and exhausted look. It was stated by those in attendance that her hands and feet had been cold, but this was not the case at the time of the visit. The pulse was 75, rather small and hard. The abdomen was exposed, and found to be no more prominent than would be expected in a woman of her build; there was nowhere any tenderness upon pressure or manipulation, no tension of the abdominal parietes, nor could any intestinal tumor be detected. In reply to questions, she denied absolutely the existence of any pain beyond the distress in the region of the stomach, which she ascribed to the effects of the long-continued retching. An eighth of a grain of morphia was given subcutaneously, and hot fomentations and enemata were ordered to be used subsequently. She was visited again at eight in the evening, when it was ascertained that the vomiting had been arrested for about an hour and a half after the administration of the morphia, but that it had returned again with its former frequency after a small quantity of Apollinaris water had been drunk. A quarter of a grain of morphia was then injected, and the patient watched for half an hour, when, as there had been no vomiting and the woman pronounced herself comfortable, she was left in charge of the nurse for the night. In response to an urgent message, she was visited at ten o'clock the next forenoon, the 28th, and found to be pulseless and *in articulo mortis.* There had been no return of the vomiting during the night, extreme thirst and restlessness being the only symptoms complained of.

The *autopsy* was made by Dr. E. G. Cutler, and a strangulated inguinal hernia of the right side was found. The hernial sac was of about the size of the last joint of the thumb, and was nearly filled by a portion of the omentum, firmly adherent; in addition, a small knuckle of the ileum, about the size of a bean was found to be nipped by the inner ring. The calibre of the gut was not perceptibly diminished by the incarceration; it was of a chocolate color, and was covered by a thin false membrane. A relatively small amount of fluid fæces filled the intestine above the hernia, while below it was empty. There was no general peritonitis and no gangrene. The rapid sinking appeared to be fairly attributable to the exhaustion induced by the violent retching and vomiting, which had been maintained for a period of sixteen hours.

Dr. F. C. Shattuck said a case occurred in the Massachusetts General Hospital while he was a house officer. Vomiting was the prominent symptom, and strangulated hernia being suspected, two of the surgeons were requested to decide on the question of operation; they gave a negative decision, and two days after the patient died. At the autopsy a very small fragment of the intestinal wall was found to be nipped, while the lumen of the gut was not diminished.

Dr. C. D. Homans related a similar case.

Perforation of the Bladder through the Rectum. — Dr. Beach reported the following case: A boy sixteen years of age while sitting upon a window sash, not containing glass, by the giving way of the frame was let down upon one of the uprights, which entered the rectum through the anus, and passing forward above the prostate gland perforated the bladder. The patient pulled the piece of wood from the wound, and a copious hæmorrhage followed, which continued at intervals through the day and night. He was sent to the Massachusetts General Hospital on the following day, and upon examination it was found that if the anus were dilated, bloody urine would flow out. The laceration of the bladder was located just above the prostate gland, and would easily admit two fingers separated about half an inch. A catheter passed into the bladder evacuated some bloody and putrid urine. A soft rubber catheter was substituted and kept in the bladder permanently; another was retained in the rectum, and the patient placed on a bed-pan. The wound was constantly bathed with an aqueous solution of thymol by injecting it into the bladder, from whence it passed to the rectum, and thence out by the rectal catheter into the bed-pan, so that if infiltration occurred it would be produced by a less dangerous agent than putrid urine. A milk diet was insisted on. During the first few days after entrance into the hospital the patient had some abdominal tenderness and distention, requiring, however, but one opiate to relieve pain. No urine came through the rectal tube after the sixth day. The catheter was finally removed on the fifteenth day. Three weeks after the accident he was eating house diet, and had passed his urine without pain or difficulty for a week. His temperature when he entered the hospital was 101.3° F., and the pulse 112; both steadily lowered until the day he left the hospital, well, on October 12th, twenty-seven days after the injury. A rectal examination by the speculum disclosed the wound healed by a firm cicatrix. A full bladder might account for the fact that the peritoneal sac was not opened. The urine had no other odor than that of the thymol from the time it was used. Mr. Prescott Hewitt reports a case [1] in which the rectum and urinary bladder were transfixed by the patient falling upon the broken leg of a chair. Death resulted from peritonitis dependent on extravasation of urine into the peritoneal sac. Mr. Bucé, of Slough, reported to Dr. Beach a case in which recovery took place. A man forty-six years old, while sporting with a companion, was pushed off a cart-load of fagots and fell on a stake driven into the earth. The stake, passing through the anus, pierced the walls of the rectum and tore the posterior region of the bladder immediately behind the prostate gland. The index finger was passed into the bladder through the wound. The man complained of intense pain. He was bled, and a full dose of opium administered. Mustard cataplasms and fomentations were applied over the abdomen. He was kept in bed, and in two months after the injury the urine was voided by the urethra!

Chronic Parenchymatous Nephritis; Hydronephrosis. — DR. LYMAN reported the case. The patient was thirty-seven years old, and had suffered from several attacks of acute articular rheumatism, and had also had gonorrhœa a number of times. He entered the City Hospital complaining of dyspnœa and palpitation on exertion and œdema of the feet and legs. The area of cardiac dullness was increased, and there was a soft systolic souffle at the apex, with a harsh, rasping murmur heard over the aortic valves with the second sound. On examining the abdomen there was found to be an unusual prominence on the right of the median line in the umbilical region. It was caused by a symmetrically ovoid swelling, dull on percussion, fluctuating, without tenderness, of the size of a large cocoa-nut, and which the patient had had since his seventeenth year. The dullness extended far back on the right side. After a few days the patient had increase of dyspnœa, with rusty sputa and cough, together with slight elevation of temperature, while a physical examination revealed crepitant râles throughout the right lung. The urine was of very low specific gravity, contained two per cent. of albumen and large numbers of granular and fatty casts, together with renal epithelium. The dyspnœa continued to increase in spite of all measures looking toward relief, and the patient finally died comatose.

At the autopsy there was found to be red hepatization of the right lung; the left ventricle of the heart was much hypertrophied; the valves were healthy; the left kidney was nearly six ounces in weight and of a dull whitish-yellow color; the tubules were opaque, and on microscopic examination were seen to have an extremely granular and fatty epithelium, and in many places to be filled with casts. The tumor in the right side was observed to be the remains of the right kidney, which was represented by an enormous fibrous sac with several irregular protrusions, evidently the former calices. No kidney substance remained; the ureter of the kidney was of normal size and pervious; it entered the sac at a right angle with its largest diameter, which was in the axis of the body and under a thin valve-like membrane some two inches in length, like the opening into the bladder. The right renal artery and vein were not abnormal either in size or in position.

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[1] Holmes's Surgery, vol. ii. p. 722.

DECEMBER 8, 1879. *Direct Inguinal Hernia.* — DR. FIFIELD related the case. A patient entered the City Hospital reporting that he had never had hernia before. On examination, there was found to be an inguinal hernia the size of the fist; as prolonged and repeated taxis had evidently been practiced outside, the patient was not further molested, but was sent to the ward, and a poultice placed over the tumor, which was soft, and though irreducible was productive of no pain or other subjective symptom. The next morning he reported himself as comfortable, and from day to day averred that flatus passed from the bowels naturally. The hernia was therefore believed to be omental; but a few days after, on grasping the tumor, it was felt to contain intestine, which could be pushed into and within the ring; it was not painful. One evening he was found with an elevated temperature and some vomiting, and it was believed on consultation that some inflammation was going on in the omentum; the intestine was easily reduced by gentle taxis, but the omentum could not be. On operating, it was found that there was an exceedingly thick, large sac, and on dividing the sac and ring a thick rope of omentum was seen to be most intimately attached to the sac. The patient died the next day, and at the autopsy the omentum was found to have descended into the sac and to be adherent to the bottom and sides of the same. A careful dissection of the omentum showed that it had formed a bag into which a fold of the intestine had descended; above in the abdominal cavity a portion of the fold had been attached to the walls of the ring by old adhesions. The gut was of a dark purple color, and was marked by a deep sulcus where it was constricted, but the continuity of the lumen was not interrupted. The hernia was direct, and had evidently existed many years. Dr. Fifield had never seen such a hernia before, and did not know how it could have been discovered, either before or indeed during an operation. If intestine were present in the cavity of the omentum and detectable by percussion, *then* when the omentum was divided and turned back it might have been seen.

DR. WARREN said he had recently read in Gosselin's Surgery of similar cases. The sacs are said to be usually very large, and strangulation does not occur, though it seems to be impending, the symptoms passing off after a time. The intestine is ordinarily not adherent.

DR. FIFIELD further said that the usual sound when intestine is returned by taxis, "*gluck gluck*," was not heard here, as it was concealed by the presence of the omentum; the sound was a peculiar crack or snap. Dr. Fifield referred to another case, previously reported to the society, where a man formerly the subject of hernia fell and caused a separation, with rupture, of intestine adherent at the ring, as was proved by autopsy.

Slight Perineal Lacerations. — Dr. Lyman read a paper on slight perineal lacerations, which he said were extremely frequent in women who had borne children, so much so that Schroeder estimated that they existed in over one third and Olshausen in over one fifth of all parous women. He said that no laceration extending beyond the fourchette sufficiently to leave a recognizable cicatrix is unimportant, for no such lesion is without injurious effects in many ways. The more common results which may ensue, if enumerated somewhat in the order of their gravity, and more or less likely of course in proportion to the extent of the laceration, are, primarily, septicæmia, and, secondarily, sterility, cystocele, rectocele, and prolapsus, with consequent derangements of the pelvic circulation, as endometritis, cervicitis, cystitis, and leucorrhœa, imperfect coition, pruritus, vaginal flatus, and extensive reflex neuralgic irritation from the cicatrices. This formidable list might be extended without exceeding the reality. He did not mean that all, or many of them perhaps, occurred in every case, but in the majority of cases one or more of them were tolerably common. He urged that the perinæum should be thoroughly inspected immediately after labor, and if any laceration be found, however slight, a sufficient number of sutures should be introduced to retain the edges in contact, exclude the lochial discharges, and allow the parts to heal by first intention, instead of by granulation with its necessary accompaniment of cicatricial induration. He closed by calling attention to the admirable paper of Dr. Reamy, of Cincinnati, in one of the volumes of Transactions of the American Gynæcological Society.

Dr. Reynolds opened the discussion by saying that he hesitated to occupy the attention of the society with suggestions upon these points, which have so often been treated of. He could not forbear taking the opportunity of directing the attenion of members of the society to a paper by Dr. David B. Hart, which is to be found in the *Edinburgh Medical Journal* for April, 1879, in which new and striking views of the anatomical details and the functions of the floor of the pelvis in woman are set forth with great force and clearness. The paper, when read in the Edinburgh Obstetrical Society, attracted unusual attention, and cannot fail to interest greatly members who find time to examine it. A thorough appreciation of the facts which are there touched upon is essential to the formation of intelligent opinions upon the subject now before the society, as well as upon other gynæcological and obstetrical questions of still greater moment. It was worth while to remind practitioners that under the most careful management laceration of the perinæum will occur in a considerable percentage of primiparæ. Thus Schroeder, in urging the advantage of what is substantially a knee-elbow position at the moment of expulsion, admits that in that attitude forty-three per cent. of women confined for the first time show some degree of laceration, while real tears occur in about twenty-four per cent., or once in every four cases. On the back, these proportions are increased to half as much again. This is to be understood as applying only to cases which present no unusual difficulty. Where special obstacles, such as a narrow pubic arch, forcing back the end of the head upon a greatly stretched perinæum, or the expulsion of a vertex by backward extension, complicate the delivery, ill-luck must be expected. The passage of the posterior shoulder, with its sharp, irregular outline, brings even greater risk than that from the round, smooth head; and it seems not impossible that now and then the unguarded exit of a heavy placenta may tear a perineal edge already bruised, softened, and stretched, even when the whole child has been expelled without harm. It was worth while to remind gentlemen that in fair cases of extraction by forceps the attendant is rightly held to have more than the ordinary chance of protecting the perinæum, and is in fault if he allows any bad tear to take place. Dr. Reynolds stated that the details of the management of the expulsion of the child, as seen in the lying-in wards at Vienna, appeared to him judicious. The final exit of the head from the vulva is, if possible, retarded during several pains; pressure is directed toward the arch and away from the stretched perinæum; the head is finally guided out in an interval between two pains. In conclusion, he wished to add his testimony to the great advantage which results from the prompt use of sutures in all injuries of these parts. It gives the accoucheur very little trouble to have always at hand two strong, curved needles and a supply of carbolized catgut. The sutures should be wide and deep. A satisfactory result is to be expected.

Dr. Richardson, being called upon by the chairman, said that he agreed entirely with the reader of the paper as to the necessity of the obstetrician paying attention to the minor as well as the greater lacerations of the perinæum. With proper care at the time of the delivery, much future distress and even immediate danger may be avoided. The obstetrician should always examine the perinæum at the close of a confinement, and to be of value the examination must be carefully made, for it will occasionally be found that the lower vaginal wall is ruptured without any apparent fissure through the external skin. Whenever there is a laceration beyond the fourchette he believed that stitches of carbolized catgut should be immediately taken, and to be effectual the stitches must be deep. Union by first intention is thus secured, and the temporary annoyance and distress of a lacerated perinæum avoided. He could not quite agree with Dr. Lyman as to the serious results in the future which might follow a comparatively slight perineal laceration, for he questioned whether gynæcologists were not apt to ascribe too many troubles to a slight loss of the perineal body which were really due to something else; but he did believe that the neglect of even a slight laceration was productive of great temporary discomfort. More than this, he was convinced by experience that not unfrequently septicæmia owed its origin to the absorption of fetid lochia by a torn perinæum, although of course the placental site was usually the seat of the primary infection. In all cases of lacerated perinei he was in the habit of especially insisting on the use of carbolized vaginal injections and the local application of carbolized vasolene. He agreed with Dr. Reynolds that the passage of the shoulders very frequently caused the laceration even after the head had been safely born; with a view of forestalling any such danger, he was in the habit of drawing down, in the interval of the pains, the perineal arm. He agreed with Dr. Reynolds as to the danger of using forceps, since he believed that we were able with them to control the head better, and by properly directing it towards the pubic arch to avoid a laceration of the perinæum. This advantage would not, of course, be found in difficult cases. He could not agree with the majority of writers on this subject as to the advantage to be gained by keeping the bowels constipated after sewing up a lacerated perinæum; on the other hand, he agreed with Winckel that it was far better to keep the bowels loose.

Dr. Abbot said he had rarely seen other than slight lacerations follow labor, and had usually considered them of no consequence. He had not been impressed by his patient's complaints of uterine symptoms subsequently. He had seen but one bad rupture in his practice, many years ago, and this he did not sew up. An examination made some time after the labor showed that the scar was one and a half inches long; the patient afterwards had twins, and within a few months he had seen her again, learning that she had remained perfectly well, and made no complaint of uterine troubles. The late professor of obstetrics, Dr. Buckingham, for many years was very careful in the treatment of such cases, but just before his death, in a conversation with Dr. Abbot, he said you could not keep the rupture from healing if you tried. With reference to the use of the forceps in preventing the occurrence of laceration, he thought that the matter of anæsthesia should be taken into account also.

Dr. Hodges remarked that the comfort which a woman received from having her perinæum sewed up after laceration was such as to deserve attention; and she ought to have this afforded her, as it prevented friction of the surfaces during the process of repair. Thus treated it heals up readily, and by first intention. In regard to the stitches, they should be extremely deep to insure success, and furthermore should be of silver wire, and not of silk, which has a capillary action and creates an irritation along the track of the wound. Catgut he never uses, as it may possibly be absorbed too quickly, and lose its capacity of holding the parts together. The matter of hæmorrhage should also be alluded to; some years ago he had seen a very considerable bleeding occur at the Rotunda Hospital from a ruptured perinæum, where stitches were not then used.

Dr. Warren said that as in cases of ovariotomy a particular diet was required subsequently, so in lacerated perinæum, after operation, it was essential to pay regard to this point. According to his experience, liquid farinaceous diet, and especially milk, was productive of a large amount of fæces, while liquid animal diet he found to be the best in this respect. Several cases in point were cited. He avoided a movement of the bowels for eight days, and then insured one daily.

Dr. Fifield remarked that Goodell commended the immediate, or primary, operation after delivery, though he places but little reliance on its success; he uses silver stitches. The secondary operations were more likely to prove successful. Tait also places but little reliance on primary operations. He himself in delivering women always placed them on the side, and guided the head over the perinæum by inserting the fingers into the rectum, thinking that he was thus more successful in avoiding rupture.

In closing the discussion Dr. Lyman said he had also had one case of hæmorrhage similar to that mentioned by Dr. Hodges. He considered that if the sutures were introduced deep enough at primary operations they would be efficient. He considered that the fact of non-complaint to the practitioner by the patient was no criterion of her condition, for women expect a certain amount of discomfort as the result of bearing children.

Sanitary Organization of Nations. — Paper by Dr. Bowditch. He deemed that the time had arrived when the subject of the public health of nations should be placed under the guardianship of international law; that nations have as much right to prevent the spread of contagious diseases from one country to another as they have to prevent rapine and plunder, and quite as much right to blockade, if need be, Cuba to keep off yellow fever as England and America had a right to blockade Africa to prevent tha horrors of the middle passage.

Dr. Bowditch thought that the United States government could most appropriately invite other nations to such an international sanitary congress, and that it was its sacred duty to so: first, because its government came from the people; second, for want of some such agreement among nations we have often suffered from the incursions of fatal epidemics; third, because of the result of the recent support by Congress of the National Board of Health in its dealings with yellow fever at Memphis. The brilliant results there obtained prove what immense power for good a nation and a combination of nations may have.

Dr. Bowditch then gave his views upon the proper form of sanitary organization for a nation, and he took the ground that, first, there should be a secretary or minister of health, with a seat in the cabinet, to hold office for six years, and to ensure the choice of a person fitted for the office the Academy of Science and the National Board of Health should present one or more candidates for selection by the sovereign executive. Said officer should be president of a national board of health, and act by and with their advice, and be their executive officer.

Dr. Bowditch thought that the National Board of Health should consist of men resident in Washington, and drawn chiefly from attachés of the various departments, to whom should be added one or more civilians, so as to form a board of nine members, all of whom could readily and speedily meet for consultation. These with the secretary would immediately put themselves in relation with state or department boards of health. The National Board should also be prepared to nominate to the sovereign executive a person fitted to be the representative of the nation at an international congress. It would have its eyes over every portion of the nation, and know precisely the sanitary condition of each locality.

In cases of great peril it might summon one from every state or department board of health to sit in council upon the sanitary needs of the nation.

Finally, when treating of state sanitary organization, he spoke freely and frankly of the present unfortunate position of the Board of Health of Massachusetts. He held it up as a warning to other States not to imitate her in mixing different subjects, of charity and so forth, or any other, however good, with sanitary work, to the injury of both. He regarded the law passed last year as a huge folly, threatening disaster to the whole subject of public health in the State. He hoped that in a few years the Board of Health would be left to carry out its own purposes, untrammeled by matters of charity or lunacy. He alluded to the numberless ways in which a free board could carry on its noble object of educating the people in sanitary knowledge, and of actually improving the public health.

In discussing the paper, DR. FOLSOM said that to have a secretary of an international board was not a good plan, because it would be of no advantage to the board or nation, but rather a disadvantage to both. The chief danger to the United States is from Havana, and the Spanish authorities could not probably be made to do much. To have a secretary of the National Board was not good, in that there was so much danger of clashing with the advisory council, and it was important that the chief medical officer should give the greatest part of his attention to sanitary matters, and to nothing else. Nearly all the sanitary work of value done this summer at the South was that of the National Board, except in New Orleans. It was of no advantage to have the members of the board live near Washington, as was shown this summer; and there was a great advantage in having them represent different sections of the country. He hoped that the present organization would not be interfered with. He did not entirely agree with Dr. Bowditch in his idea of matters in Massachusetts; he thought the health department had not lost a very great deal, and, on the other hand, the others had gained something. He could not say it had been a disastrous result; more power had been given to the health department in certain ways, as, for instance, they had a supervision over state institutions, though he considered it a blunder.

DR. DURGIN, who had been invited to be present, thought that one of the chief objections to having a secretary of the National Board in Washington was that it was unnecessary. With an international board we could secure an inspection of vessels on leaving port. He thought there should be an inspection every six months at least before loading the cargoes. Ships should be thoroughly cleaned and disinfected, not only above, but also underneath, and everything should be washed and scrubbed, even to the knees and ribs and between them. He thought there should be state boards of health in every State, and city boards in every city or town, and that their action should be harmonious. Lawyers, engineers, and physicians should compose the boards, and should be appointed for long periods or for life, with good salaries. The several societies of these classes of men should elect members to these boards of health, and where towns neglect to do this the government should do it for them. United action would give great strength and good work, and should be encouraged by the medical profession. One uniform return should be made to the National Board every week, and thence an abstract sent back to all the boards, where it could be utilized.

EPHRAIM McDOWELL.[1]

Among the many triumphs of American surgery none is more brilliant than ovariotomy, and there is not one which has won its way through more of opposition and misrepresentation; and now that its merits are universally recognized, it is right that its originator should have his well-deserved fame so secured to him that others should not hereafter get the credit which his own reticence imperiled. A quarter of a century ago no language was too contemptuous, no denunciation too bitter, for those who dared to countenance such murderous "belly ripping," such unscientific surgery; they were threatened not only with the grand jury, but, what was even more galling to such men, with professional ostracism. Professional theories, however, must always succumb to facts, and no one in these days is more honored than the successful ovariotomist. When attention was first thoroughly aroused to the possible future of this operation, and investigations into its history were begun, so little was known of McDowell, so modestly and obscurely had he reported his cases, that it is not strange that others should have been allowed the prior claim, and it remained for Dr. Gross, at a later day, when the facts were more accessible, to establish beyond question the claim of the distinguished Kentuckian.

The present small volume contains, with some notes of the other proceedings, the oration of Professor Gross at the dedication of a monument erected to the memory of McDowell by the Kentucky State Medical Society. The eulogy comes very gracefully from one who himself ranks so high in American surgery both as operator, pathologist, and teacher. It abounds in interesting historical facts, and is a welcome tribute to the man himself, and incidentally to the State, which has produced so many other distinguished surgeons.

G. H. L.

GOODELL ON EXTIRPATION OF THE OVARIES.[2]

This little brochure is a relation of cases in which the author has removed the ovaries for menstrual disorders. As a contribution to the statistics of a novel operation it is of service, but much farther experience in this direction is needed before the procedure can be said to be an authorized or established one. The ratio of mortality is certainly thus far not very encouraging. In certain cases of epilepsy or insanity the operation would doubtless be justifiable, but for the mere relief of the physical suffering arising from ovaralgia, which marriage or the menopause will possibly and probably relieve, — for "troublesome fibroids," the hæmorrhage from which, if subperitoneal, is rare, and if submucous or intramural may usually be controlled by other means, especially by free dilatation of the cervix, perhaps the safest and most certain mode of all, — this operation will hardly be recognized by most practitioners as a proper one. It is by no means certain that the statistics of enucleation would not give more favorable results, and that too with the reproductive organs remaining intact for future use.

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[1] *Memorial Oration in Honor of Ephraim McDowell, "the Father of Ovariotomy."* By Samuel D. Gross, M. D. Louisville, Kentucky. 1879.

[2] *The Extirpation of the Ovaries for some of the Disorders of Menstrual Life.* By William Goodell, M. D. Philadelphia. 1879.

A REVIVAL IN SOCIETY WORK.

In the number of the Journal for July 10th of this year there appeared some editorial remarks on the value of society work, which were unquestionably very timely. Though not leading professional opinion as to the necessity for the infusion of a more vigorous life into some of our medical societies, they doubtless pretty accurately reflected the best feeling of the profession in regard to the short-comings of the societies and what might justly be expected from them. "One of the most obvious defects" was there stated to be "the absence of that feature which gives their peculiar value to the proceedings of a society, — the discussions, by means of which the opinions of a number of individuals on a given subject are collected in a convenient and instructive form. A large amount of time may be consumed in the reading of an elaborate paper on a subject with which few members are familiar, and in which none have had an opportunity to interest themselves beforehand, and the reader may congratulate himself if a few intelligent questions are asked by a considerate friend to save his paper from being wholly ignored." The methods in vogue and the results obtained in the New York and Philadelphia as well as the London societies were approvingly cited, and it was finally suggested that "the all-important element of success is the existence of an active, autocratic, and organizing head, who shall stimulate the lazy, keep down the irrepressible, and make all members feel that membership carries with it a responsibility from which they cannot escape." We reproduce a few of the points made in the editorial referred to because they indicate so exactly the abuses at that time existing, the direction in which reforms were required, and the very method which has since been adopted by one of the oldest, the most honored, and which should be the most useful and earnest of the Boston societies, — we refer to the Medical Improvement. Early in the season it reorganized itself by the appointment of a permanent chairman, to which position Dr. J. C. White was elected, and the society may be congratulatod upon now having "an active, autocratic, and organizing head," who may be relied upon to perform the functions indicated above. Two meetings have been already held under the new *régime* with very marked success.

The subject for discussion has been allotted to some one gentleman before the meeting, and certain members notified that they would be expected to take part. We publish in our present number a report of these meetings, which will be found interesting. The Suffolk District Society has for some time back been shedding a brighter and more steady light, and the Observation recently emitted sudden evidences of unsuspected activity amongst its elements, the immediate exciting cause being a paper on tracheotomy, judiciously ignited and scattered in the midst of its most explosive compounds.

Stars of the first magnitude have been known to fade with the lapse of time and to become extinct, but a few others, after receding low in the scale, have astonished observers by rapidly resuming their former brightness. Let us take comfort in the thought. The Journal hopes to contribute its part to this general revival by placing at the disposition of society reports a portion of the increased space which it expects soon to command, thus giving the reports more promptly and, where desirable, more fully; and we hope the secretaries will not consider it necessary to await a second meeting before sending in a synopsis of the previous one. In the editorial from which we quote it is stated that though "our journals were never so crowded with society reports as at the present time, yet the tendency of the general reader to skip this part of the number is, we should judge, upon the increase."

A hearty coöperation in the directions indicated would soon enable us to reverse this testimony.

MEMPHIS TO BE TRANSFORMED.

THE commissioners of the "taxing district" called Memphis have, we understand, accepted the recommendations contained in the report of the committee appointed by the National Board of Health to make a sanitary survey, including a house-to-house inspection, of that place, and the governor of the State has called a special meeting of the legislature to vote a tax, we believe of two per cent., that funds may be on hand to carry these recommendations into effect.

In the report of the committee it was specifically proved that Memphis is sanitarily filthy, badly watered, and badly drained beyond the suspicions even of the most outrageous and disagreeable sanitarian; that many houses and buildings are hopelessly infected with yellow fever poison; and that there still exists in various parts of the city, in junk shops, etc., much presumably infected material. The committee, consisting of Drs. Billings, chairman, Mitchell and Folsom, Messrs. Waring and Benyauzo, recommended that a large number of houses should be condemned, torn down, and the material destroyed by fire (this includes not only foul shanties and cabins, but some large buildings in the heart of the city); the destruction of suspicious bedding and junk; the ventilation in detail and chilling of every house; a system of sewerage, devised by Colonel Waring, to cost only two hundred and twenty-five thousand dollars; a better water supply; a new street pavement; the transformation of the banks of the stinking and unwholesome Bayou Gayosa into a park; the adoption of stringent building licenses and inspection, and the common sanitary policing of a well-ordered city. The report closes with the expression of the opinion that few places possess greater natural advantages for the attainment of that healthfulness so necessary to commercial prosperity, and that by carrying into effect simple sanitary laws Memphis may soon become one of the healthiest cities in the valley of the Mississippi. We hope soon to see it such. It certainly owes the experiment to the rest of the country, and we believe it at last earnestly desires to make it on its own account. In carrying this matter to a successful termination the National Board will deserve the thanks of all.

MEDICAL NOTES.

— Dr. Cowles has recently entered upon his duties as superintendent at the McLean Asylum at Somerville, having returned from a six months' tour through France and England, where he has carefully studied the methods of treating the insane.

— The medical wards of the Massachusetts General Hospital, which were recently closed for repairs, are now reopened, and present a bright and inviting appearance.

— Referring to teachers of certain medical schools whose final examinations may be compared to a net whose meshes are of inordinate size, the St. Louis *Clinical Record*, in an editorial on Quackery under the Code of Ethics, says: "Yet these teachers who are so ready to graduate ignorant men to slay the people without let or hindrance are mostly honored members of local societies and of the American Medical Association. They have subscribed to the Code over and over again, only each year to break the faith pledged with so much earnestness. *These* are the sticklers for professional ethics, etiquette, honor, and glory! If there is such a thing as real, genuine, unadulterated quackery under the sun, then this is the thing in its most atrocious form."

NEW YORK.

— In consequence of the report of a commission of medical men holding positions under the department appointed to make an examination of the affairs of the lunatic asylum on Blackwell's Island, the commissioners of charities and correction have removed the medical superintendent, Dr. W. W. Strew, and Dr. R. J. Kingston, the assistant superintendent, for incompetency, and have directed Dr. A. E. McDonald, superintendent of the asylum on Ward's Island, to take temporary charge of the institution. It is believed by many that eventually Dr. McDonald, who has proved himself an excellent executive officer, will be made permanent superintendent of the two asylums, and will be allowed a medical assistant in each.

— There was recently given in this city a very interesting exhibition of the "audiphone" by its inventor, Mr. Richard S. Rhodes, of Chicago. In introducing him to the audience, Dr. George M. Beard said that he had not thoroughly examined the instrument, but he believed that it would prove more serviceable to those who were almost completely deaf than to those who were only partially deaf, providing the auditory nerve was not destroyed. Mr. Rhodes, who is himself very deaf, then explained the use of the audiphone, which is composed of vulcanized rubber, and somewhat resembles a Japanese fan. The flexible part is adjusted in a semi-cylindrical shape by means of cords attached to it, and held in place by a clamp or wedge on the handle, so that the arc described by it can be arranged to suit bass or treble voices, as deaf persons can appreciate a high-pitched tone better than one of a lower pitch. When in use the instrument is held in contact with the teeth, and Mr. Rhodes made a number of striking experiments with it upon some deaf mutes from the New York Deaf and Dumb Asylum at Washington Heights. It is said that classes are about to be formed in this institution for the instruction of deaf mutes in articulate language by means of the audiphone.

— During the annual session of the American Institute of Architects, which was lately held in New York, the society, at the invitation of the architect, Mr. C. C. Haight, visited the new buildings of Columbia College, and while there listened to a lecture in the School of Mines by Professor Chandler, president of the board of health, on the tenement-house question, which was illustrated by numerous diagrams projected on a screen by the aid of the stereopticon. He said that now for the first time was the board able to do something towards reform, backed, as it was, by the law passed by the legislature last year. The result of the recent competition for a model tenement house upon a lot of twenty-five by one hundred feet had brought out two hundred designs, but not one of them completely met the conditions of health and economy. One effect of the law had been that the building of tenements, formerly avoided by architects of ability, and carried on almost entirely by common mechanics, who worked altogether by a conventional rule of thumb, was now passing into the hands of architects of standing, who were competent to cope with this complex problem. It was a question with the board whether the law which exacted ten feet of clear space at the end of a building also applied to the corner houses of a row, but the importance of having a free circulation of air through the centre of the block compelled it to insist upon the vent. In some cases the rules seemed to work harshly, and there were so many modifications of condition that the board of health in its conflict with the owners and builders of tenement-house property would be glad to avail itself of the aid and assistance of educated architects. There were many points about air-shafts and piping in regard to which the board had not as yet arrived at definite conclusions. It had decided, however, that a shaft should not have less than twelve square feet area of cross-section, and that windows opening upon it from bedrooms should have sliding sashes, and have a face area of at least twelve feet. These shafts must be ventilated by an air-duct at the bottom running either to the front or rear of the house, and opening out into the free air. The ventilation of pipes was as yet an open question, and it would probably be the ultimate decision of the board that all traps should be ventilated by special open pipes carried to the roof. An interesting discussion followed Professor Chandler's remarks.

PHILADELPHIA.

— Dr. Carl Seiler exhibited at the last meeting of the County Medical Society a new immersion microtome, consisting of a metal tank about six by twenty inches and one inch deep; in the centre of the floor of this tank, projecting about half an inch, is placed an ordinary screw microtome chamber about two inches in diameter, over the surface of which plays a guillotine section cutter. The extremities of the knife are attached to two brass arms, which by a double bend (or elbow) are carried up and over the side, and there attached by two thumb screws moving in slots in horizontal brass supports, extending about five inches from the side of the trough. In this way a guillotine motion is communicated to the knife, which carries it with a lateral sweep through the structures. The specimens are hardened, as usual; then being fastened in the well, the trough is filled with dilute alcohol, and the sections are cut under the surface of the liquid, and floated off on glass. Sections of the human larynx, a fœtal foot, a cat's kidney, and others, all beautifully double stained and mounted, were shown by Dr. Seiler on the screen by the aid of the lantern. He has in preparation a large immersion section cutter, which will enable him to make sections of the entire brain.

— It is reported that several cases of mild or modified typhus are now in the wards of the Philadelphia Hospital. The occurrence thus early in the winter possibly indicates the outbreak of another epidemic similar to that of 1870, which was the last time that typhus prevailed to any extent in this city.

CHICAGO.

— A new rule in the matter of the order of study and examinations in Rush College will soon go into effect, whereby students who attend three full winter courses of lectures before graduating may pass a final examination in anatomy, physiology, chemistry, materia medica, and therapeutics at the end of the second course. This is a step toward a graded system. The graduation fee is to be abolished, and instead an examination fee is to be established which is not returnable to candidates who fail to pass for the degree.

— The new board of county commissioners has got to work, and there is the usual scramble for the medical offices in their gift, — those of county physician, physician to the Insane Asylum, and his assistant.

CRITICISMS ON THE "MAKE UP" OF MEDICAL JOURNALS.

Mr. Editor, — I have for a long time been treasuring up complaints against the annoyances caused by the make up of the publishers of so many of our professional journals of the day, until at last I have determined to formularize them and send them to you to put in print.

The practitioner who takes his half dozen journals, reads them, and sets them aside as they are, for future reference or for lumber in some neglected corner of his library, probably feels very little of the annoyances which to the lover of order and symmetry in the arrangement and binding of his books are so glaring, and to the librarian so very troublesome. The success and fame of the library of the surgeon-general's office at Washington have so stimulated many of our institutions to increased efforts that it would seem as if this were an age of libraries, and its influence in this respect is being felt throughout the country; the medical man fitted for the duties of a librarian is becoming an important necessity, and he feels keenly these deficiencies and mistakes.

In binding the periodical literature of the day, a custom is becoming prevalent of binding in the advertisements; what a rich field for many purposes this would have afforded had the custom always prevailed, and we could now look over the advertising columns of our grandfathers in medicine! But few of our binders will understand this new innovation of book men, and it is hard to make them appreciate its importance; consequently, for this and other reasons, every careful librarian prepares his own books for the binder just as they are to be finished. His first experience is the hacking of his knife blade, the tearing of his finger-tips, and the loss of his patience in attempting to extract the metal clamps which so many have substituted for the old sewing process. These metal clamps may be all very well for dispatch and neatness, but when they are pasted down and bent in so as to make it impossible to extract them without tearing the paper they are set in, they become an abomination. *Verbum sap.*, Mr. Editor.

This done, the next step is naturally to separate the advertisements; and where do we find them? Some have to be torn off from three or four pages of the proper text of the journal, making a very ugly job; others are found so scattered or interpolated between the pages of the journal as to destroy all the pleasure of reading the articles. It is certainly very incongruous, to say the least, to break off in the reading, for example, of an article on disorders of the alimentary canal, and to find the next page taken up with an advertisement of somebody's pessary, or, *per contra*, an article on uterine flexions, having its text continued by a new preparation of pepsine. When these are searched out and put in their proper places, the arrangement of the text by paging comes next. Here is a new trouble which sometimes puzzles us all: the paging goes on in some journals through all the advertisements, in others through a part only (and the latter is the worst), until finally we come to disregard the paging altogether.

Now we have put our sheets together, shall we have the leaves cut in the American fashion, or, following the example of our English brethren, leave them with rough edges? We find in many instances that we have no choice; the issues are so irregular in size as to make trimming a necessity, and to leave with some, instead of the fair margin which we so delight in, scarcely any margin at all; and some of the best journals do this. Finally, we are to select our title-page and index to be properly inserted. Where are they? — a question which is very often left unanswered. Why do so many journals publish these important parts of a year's volume in the next year's issue? It seems like taking a mean advantage to make a man continue his subscription; but even that is better than not publishing them at all, as is sometimes the case. That grand work, the *Index Medicus*, should be patronized for indexing so much otherwise totally unindexed matter, if for nothing else. What title shall we give our specimen journal in our catalogue and for its back? It commenced as the Weekly Medical Informer, perhaps; now, when half through its third volume, it has become the Smithville Weekly Medical Informer. All we can do is to make a new catalogue card, and put two titles on the back, one for each half the volume. The numbering of the volume will go on rolling up without regard to change of title, and we must follow as best we can. When we get into series, volumes, and numbers, with their irregularities, we have to take down our arithmetics and use our Yankee inheritance of guessing.

I would respectfully submit these remarks through your pages to the consideration of the Association of Medical Editors, in the hope that they may some day remedy these evils by requiring a certain standard of execution in publication for recognition by them. LIBRARIAN.

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THE NEW ANÆSTHETIC, HYDROBROMIC ETHER.

MR. EDITOR, — Dr. Laurence Turnbull, of Philadelphia, having had his attention directed to the anæsthetic properties of the bromide of ethyl, or hydrobromic ether, by the physiological experiments of Rabuteau upon the lower animals,[1] has successfully employed it in the human subject as a substitute for chloroform, and at the recent meeting of the Congrès International at Amsterdam he reported that it had been thus used up to that time in over one hundred cases, not only without a fatal result, but also without any unfavorable symptoms. It is a colorless fluid, possessing an agreeable odor and pleasant taste, and as regards density and volatility it is intermediate between chloroform and the ordinary so-called sulphuric ether. It is not decomposed in the system, and appears to be eliminated by the lungs. A few drachms of the ether upon a towel are generally sufficient to produce complete unconsciousness; it is rapid in establishing anæsthesia, and transitory in its effect; there is no subsequent depression, the pulse usually remaining below 100 per minute, and, as a rule, there is no vomiting.

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[1] Comptes Rendus, lxxxiii. 1294.

Dr. Turnbull has employed it principally for minor operations, and finds it well adapted for office use on account of its transitory effects. Dr. Levis has lately used the bromide of ethyl as a substitute for ether at the Pennsylvania Hospital, and as these appear to have been the first instances in which severe operations were performed short notes of the cases are appended (kindly furnished by Dr. John B. Roberts).

It has up to the present time been used on four occasions in the Pennsylvania Hospital, namely, amputation of the fore-arm at the upper third, perineal section for stricture of the urethra, resection of a stump after former amputation of the arm, and in a case of fracture of both legs, where it was administered in order that a careful examination might be made and tenotomy be performed.

Case I. A vigorous man was admitted with a railroad crush, requiring amputation of the fore-arm at the upper third. The operation and the subsequent arrest of profuse hæmorrhage, including the dressing, occupied forty minutes. During this time anæsthesia was maintained by eleven fluid drachms of the bromide of ethyl. Snoring respiration was produced in three minutes by the first fluid drachm, and return of consciousness took place three minutes after the administration of the agent was stopped. The pulse before the operation was 80, but during anæsthesia gradually rose to 90, while the respiration was only slightly affected. There was a little nausea immediately after the operation, but this soon disappeared.

Case II. A large man, who had sustained fracture of both legs, was anæsthetized in order that a proper examination might be made and tenotomy of the tendo Achillis performed. One fluid drachm was inhaled, with the effect of producing snoring in one minute and a half; a second drachm was followed by complete muscular relaxation. The towel was withdrawn, and two minutes afterwards the man winked, showing that consciousness was returning. Complete anæsthesia was again induced by the administration of a third drachm. The tendo Achillis of the left foot was then cut subcutaneously in order to overcome displacement favored by the obliquity of the fracture. The patient altogether inhaled four drachms, and was under the anæsthetic influence ten minutes. There was no vomiting, the pupils were, it is said, uninfluenced, and respiration continued normal. The pulse gradually rose from 80 or 85 to 90 per minute. There was no struggling, as occurs so frequently during etherization. During the afternoon slight nausea was present, but there was no vomiting.

Case III. Perineal section was performed in this instance for the relief of a perineal fistula resulting from traumatic stricture of the urethra. The pulse of the man before the administration of the anæsthetic counted 120, and the respirations 30. He was given one drachm, and in two minutes another drachm. In six minutes from the beginning stertorous respiration occurred, while in eight minutes the pupils were strongly contracted, and there was profuse sweating. At the end of ten minutes the pulse was 120, and the respirations were 36. Eleven minutes after the first inhalation, a third drachm was given, and at this time the notes state that the pupils were dilated widely, the pulse 90, and the respirations 28. The patient recovered consciousness two minutes after the administration was stopped.

Case IV. A young girl, who had suffered an amputation of her arm at the upper third while an infant, presented a deformed stump. The soft structures had retracted and left the bone protruding, covered only by skin, the surface being irritable. The patient was rapidly rendered unconscious by less than two drachms of the bromide of ethyl, and the bone retrenched by strong forceps after making small flaps. After the operation she rapidly recovered from the anæsthetic, and showed no depression of the circulation nor inteference with respiration.

The results thus far obtained seem to prove that the new anæsthetic has strong claims for popular favor, but deserves closer study and more extended experience before it can be considered as established in the position which it now appears to occupy, that of being the most agreeable, efficient, and reliable of our anæsthetic agents for use in general surgery.

We are informed that this ether is now made by Messrs. Powers and Weightman. There is no difficulty in preparing it by Personne's process. (See National Dispensatory.) W.

Philadelphia, *November*, 1879.

LETTER FROM ST. LOUIS.

Mr. Editor, — The charter of St. Louis, adopted in 1876, calls for the appointment of a board of commissioners of public charities. This board has been appointed, and has been discharging its duties for some time; but as there seemed to be a question as to its authority in regard to some reforms which it wished to introduce, a special meeting was held November 17th, at which a communication from the mayor, defining its duties and powers, was received. The duties and powers are wholly supervisory, and are limited to penal and charitable institutions supported partly or entirely by the city, namely, the city hospital, female hospital, insane asylum, poor-house, house of refuge, work-house, and jail. The commissioners are required to visit these institutions once a month; they may recommend to the municipal assembly whatever changes they think are necessary, and by their unanimous vote may remove any appointed officer or employee of the institutions which they supervise. These cost the city, exclusive of repairs, three hundred and fifty-three thousand dollars annually. The commissioners are some of our most respected and honored citizens: Dr. J. B. Johnson, E. A. Filley, James McGrath, M. Friede, and August Krieckhause. They receive no compensation for their services.

The Tennessee Medical Association offered its thanks to the United States government for the organization of the National Board of Health. A little centralization of government is not always a bad thing.

The Illinois State Board of Health has instructed its secretary to investigate the manner of issuing diplomas by the St. Louis *Eclectic* Medical College, and if it does not comply with their requirements in regard to the length of its terms, to withhold certificates from its graduates. Its diplomas were not recognized by our health department more than a year since. It must not be confounded with the St. Louis Medical College.

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SHORT COMMUNICATIONS.

A CASE OF BELLADONNA POISONING.

BY F. L. SMITH, M. D., STAFFORD SPRINGS, CONN.

I WAS called on the evening of August 14th, at seven o'clock, to attend Mrs. G., a French woman, in labor with her fifth child, and on my arrival found her having strong and regular pains, the os being dilated to the size of a dime; she reported having been "sick all day." The pains continued unabated, recurring at intervals of ten or twelve minutes, the os, however, not dilating, but seeming to become more and more rigid and unyielding. This condition remaining unchanged, about twelve o'clock I made an application of ung. ext. belladonna to the neck of the womb, hoping to relieve the rigidity. The woman got up from bed to a chair immediately after the inunction. In less than fifteen minutes she complained of dizziness, and following in quick succession came great thirst, with dryness and burning of the mouth and fauces, nausea and ineffectual attempts to vomit, spasmodic movements of the arms, such as throwing them about the bed and striking at imaginary objects; there would be short intervals of repose, then these sudden convulsive motions; the pulse became feeble, the extremities cold, and the pupils widely dilated. Before the extreme urgency of the symptoms appeared, she had used a copious warm vaginal douche, with no apparent benefit, and as the case became seriously alarming I injected a third of a grain of sulphate of morphia under the skin of the arm. The convulsive motions soon subsided, and in three quarters of an hour had entirely disappeared; the thirst and dryness of the throat remained for ten or twelve hours. The labor pains did not subside until the introduction of the morphine, and the os remained unchanged throughout. I left the patient at six o'clock in the morning in a comfortable condition. There was no more appearance of labor for ten days, when the pains suddenly came on, and the woman was delivered of a healthy male child after three hours' labor. There seems a peculiar individual susceptibility to the action of the drug, as I had used precisely the same preparation, and in no larger quantity, with the best results, only a few days previous to this case, and in no case have I ever seen any deleterious effects follow its application. The drug must have been very rapidly taken into the circulation from the promptness of the symptoms after the application. I have not the slightest doubt the case would have proved fatal had nothing been done to prevent. The fœtus was unaffected by the drug. A peculiar result following it in a day or two was the entire disappearance of a condition of most distressing and obstinate granular lids of fifteen months' standing, for which she had been treated at the Charitable Eye and Ear Infirmary in Boston. The ointment used was that recommended in the United States Dispensatory.

THE LYNN HEALTH BOARD.

Our valued correspondent, Dr. J. G. Pinkham, of Lynn, informs us that the result of the vote on the health act, to which we called attention in our last number, was as follows: Yes, 3,018; No, 204. So Lynn is to have a board of health.

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REPORTED MORTALITY FOR THE WEEK ENDING DECEMBER 6, 1879.

Cities.	Population estimated for July, 1879.	Reported Deaths in each.	Deaths under Five Years.	Percentage of total Deaths from: The Principal "Zymotic" Diseases.	Lung Diseases.	Diphtheria and Croup.	Scarlet Fever.	Typhoid Fever.
New York	1,085,000	492	205	15.65	22.76	7.11	1.22	.81
Philadelphia	901,380	265	83	13.97	2.64	8.30	2.26	2.64
Brooklyn	564,400	195	75	16.92	21.54	12.31	.52	—
Chicago	—	189	85	32.80	13.23	20.63	5.82	2.65
St. Louis	—	127	50	14.17	9.45	5.51	.79	—
Baltimore	393,796	146	55	24.66	8.22	11.64	6.85	2.06
Boston	360,000	132	42	21.97	12.88	11.36	.76	2.27
Cincinnati	280,000	—	—	—	—	—	—	—
New Orleans	210,000	100	35	14.00	12.00	4.00	—	—
District of Columbia	170,000	—	23	—	—	—	—	—
Cleveland	160,000	60	20	35.00	5.00	18.33	11.67	—
Pittsburgh	—	63	32	33.33	15.87	14.29	1.59	4.77
Milwaukee	127,000	47	19	31.91	8.51	25.53	—	4.25
Providence	101,500	39	16	64.10	7.69	5.13	56.41	—
New Haven	60,000	10	3	60.00	10.00	10.00	—	—
Charleston	57,000	26	11	—	23.08	—	—	—
Nashville	27,000	11	2	18.18	9.09	—	—	9.09
Lowell	53,300	15	5	26.67	20.00	20.00	—	—
Worcester	52,500	14	5	14.29	7.14	—	—	—
Cambridge	50,000	9	3	11.11	11.11	11.11	—	—
Fall River	48,500	24	9	33.33	4.16	—	29.17	-
Lawrence	38,200	17	4	5.88	11.76	—	—	—
Lynn	34,000	8	4	37.50	—	37.50	—	—
Springfield	31,500	5	—	40.00	—	20.00	—	20.00
New Bedford	27,000	11	5	9.09	—	9.09	—	—
Salem	26,400	9	2	22.22	11.11	11.11	11.11	—
Somerville	23,350	5	2	20.00	—	—	20.00	—
Chelsea	20,800	7	3	28.57	28.57	14.29	—	—
Taunton	20,200	5	—	—	40.00	—	—	—
Holyoke	18,200	11	2	27.27	27.27	9.09	—	18.18
Gloucester	17,100	2	2	50.00	—	—	50.00	—
Newton	17,100	—	—	—	—	—	—	—
Haverhill	15,300	0	—	—	—	—	—	—
Newburyport	13,500	10	1	10.00	—	—	—	10.00
Pittsfield	12,650	2	—	—	50.00	—	—	—
Fitchburg	12,500	4	—	50.00	25.00	—	—	—
Milford	9,800	4	0	25.00	25.00	—	—	25.00

Two thousand and sixty-four deaths were reported: principal "zymotic" diseases (small-pox, measles, diphtheria and croup, diarrhœal diseases, whooping-cough, erysipelas, and fevers) 431, lung diseases 286, consumption 285, diphtheria and croup 210, scarlet fever 76, diarrhœal diseases 38, typhoid fever 33, whooping-cough 27, malarial fevers 17, measles 16, cerebro-spinal meningitis six, erysipelas six, small-pox two. (In addition, District of Columbia reports 15 deaths from lung diseases, consumption 14, diphtheria and croup four, scarlet fever and malarial fevers three, small-pox, erysipelas, and diarrhœal diseases one each, — total deaths not given.) In the cities excluding the District of Columbia, from *whooping-cough,* Pittsburgh five, Baltimore and Boston four, New York three, New Haven and Worcester two, Philadelphia, St. Louis, Cleveland, Milwaukee, Lowell, Chelsea, and Fitchburg one; from *malarial fevers,* Brooklyn five, New York and New Orleans four, Baltimore two, Cleveland and Nashville one; from *measles,* New York 10, Chicago three, St. Louis two, New Haven one; from *cerebro-spinal meningitis,* New York and Chicago two, Boston and New Orleans one; from *erysipelas,* New York three, Pittsburgh, Providence, and Fall River one; from *small-pox*, Philadelphia and New Haven one each.

As compared with the previous week, there is an increased mortality from small-pox, measles, whooping-cough, and typhoid fever; decreased from scarlet fever, diphtheria, malarial fevers, diarrhœal diseases, and consumption. In the 19 cities and towns of Massachusetts, whooping-cough and typhoid fever showed greater mortality than for the preceding week; lung diseases and diphtheria less.

The meteorological record for the week in Boston was as follows: —

Date.	Barometer.	Thermometer.			Relative Humidity.				Direction of Wind.			Velocity of Wind.			State of Weather.[1]			Rainfall.	
	Mean.	Mean.	Maximum.	Minimum.	7 A. M.	2 P. M.	9 P. M.	Mean.	7 A. M.	2 P. M.	9 P. M.	7 A. M.	2 P. M.	9 P. M.	7 A. M.	2 P. M.	9 P. M.	Duration.	Amount in Inches.
Nov. 30	30.379	24	30	20	58	32	47	46	W	NW	W	18	22	6	O	C	C	—	—
Dec. 1	30.265	36	43	16	69	21	57	49	Calm	SW	SW	0	23	16	F	F	C	—	—
" 2	30.148	45	55	34	53	32	69	51	W	SW	SW	9	8	7	F	F	O	—	—
" 3	30.154	44	54	42	67	70	83	73	W	E	NW	5	6	4	F	F	O	—	—
" 4	30.254	43	55	36	100	54	74	76	W	NW	NW	8	16	8	R	F	C	—	.08
" 5	30.477	36	42	29	78	42	71	64	N	E	E	8	8	7	F	O	O	—	—
" 6	30.090	42	49	36	81	91	100	91	SE	E	E	8	10	11	O	R	R	—	.25
Week.	30.252	39	46	31				64	E			miles.			Fair.			17 hrs.	.33

[1] O., cloudy; C., clear; F., fair; G., fog; H., hazy; S., snow; R., rain; T., threatening.

For the week ending November 15th, in 149 German cities and towns, with an estimated population of 7,560,614, the death-rate was 22.6 against 22.8 of the previous week. Three thousand two hundred and ninety-two deaths were reported: consumption 455, diarrhœal diseases 183, diphtheria and croup 145, scarlet fever 77, typhoid fever 62, measles 62, whooping-cough 44, puerperal fever 16, small-pox one, typhus fever one. The death-rates ranged from 15.8 in Elberfeld to 43.9 in Duisburg; Dantzic 35.4; Munich 32.1; Dresden 20.8; Berlin 21.2; Leipsic 27.1; Hamburg 23.5; Hanover 19.0; Bremen 19.1; Cologne 21.2; Frankfort 16.9. Also for the same week Vienna 23.7; Paris 24.4.

For the week ending November 22d, in the 20 English cities, with a population estimated at 7,383,999, the death-rate was 24.7 against 22.8 of the previous week. Three thousand four hundred and eighty-eight deaths were reported: diseases of the respiratory organs 499, scarlet fever 190, measles 133, diarrhœa 68, whooping-cough 68, fever 60, diphtheria 24, small-pox (London) one. The death-rates ranged from 15.4 in Portsmouth to 30.7 in Liverpool. London 25.4; Birmingham 24.7; Manchester 26.5; Leeds 25.4. In the 20 prominent Swiss towns there was shown an improvement in the public health, "zymotic" diseases being less fatal. The death-rate in Geneva was 15.7; Zurich 11.5; Basel 17.6.

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OFFICIAL LIST OF CHANGES OF STATIONS AND DUTIES OF OFFICERS OF THE MEDICAL DEPARTMENT U. S. ARMY, FROM DECEMBER 6, 1879, TO DECEMBER 12, 1879.

Kimball, J. P., captain and assistant surgeon. When relieved from duty at White River, Colorado, to proceed to Fort Sanders, Wyoming Territory, and resume his duties as post surgeon. S. O. 111, Department of the Platte, December 6, 1879.

DeWitt, C., captain and assistant surgeon. To resume his duties as post surgeon, Fort Sidney, Nebraska. S. O. 111, C. S., Department of the Platte.

Appel, D. M., first lieutenant and assistant surgeon. Granted leave of absence for one month, with permission to apply for one month's extension. S. O. 241, Department of the Missouri, December 2, 1879.

THE METRIC SYSTEM IN MEDICINE.

OLD STYLE.	METRIC. Gms.	
♏i. or gr. i. equals		06
fʒi. or ʒi. equals	4	
f℥i. or ℥i. equals	32	

The decimal *line* instead of *points* makes errors impossible.

As .06 (Drug) is less than a grain, while 4. and 32. (Vehicle) are more than the drachm and ounce, there is no danger of giving too large doses of strong drugs.

C. C. used for Gms. causes an error of 5 per cent. [excess].

A teaspoon is 5 Gms.; a tablespoon, 20 Gms.

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Rush Medical College, Chicago. — A concours for the lectureship on gynæcology in the spring course of lectures in this college will be held January 6, 1880. Applications for admission thereto received from "regular" physicians only. All who desire to compete for the position are requested to communicate with the secretary, who will assign subjects and furnish any desired information relating to the conditions of the concours. At the last spring session of lectures in this college 148 students were enrolled. Already 113 have matriculated for attendance upon the lectures next spring.

J. H. Etheridge, *Secretary.*

Books and Pamphlets Received. — Observations in One Hundred Cases of Carcinoma. By Dr. T. E. Satterthwaite, Surgeon to the Demilt Dispensary, etc., and Dr. W. H. Porter, Curator to the Presbyterian Hospital. (Reprint.) New York: D. Appleton & Co. 1879.

Analysis of the Record of Yellow Fever in New Orleans during the Year 1879. (Reprint.)

Ninety-Seventh Annual Catalogue of the Medical School of Harvard University, 1879–80. Cambridge: Charles W. Sever. 1879.

A Dictionary of the German Terms used in Medicine. By George R. Cutter, M. D., Surgeon of the New York Eye and Ear Infirmary, etc. New York: G. P. Putnam's Sons. 1879. (A. Williams & Co.)

A Biographical Dictionary of Contemporary American Physicians and Surgeons. Edited by William B. Atkinson, M. D. Second Edition, enlarged and revised. Philadelphia: D. G. Brinton. 1880.

Psycho-Physiological Training of an Idiotic Hand. By Edward Seguin, M. D. (Reprint.) New York: G. P. Putnam's Sons. 1879.

Eighth Annual Announcement of the College of Medicine, Syracuse University. 1879–80.

Early Medical Chicago. An Historical Sketch of the First Practitioners of Medicine, with the Present Faculties and Graduates since their Organization of the Medical Colleges of Chicago. By James Nevins Hyde, A. M., M. D., late Passed Assistant Surgeon U. S. Navy, Professor of Dermatology, Rush Medical College. Chicago: Fergus Printing Company. 1879.

Regulations for the Government of the United States Marine Hospital Service. Washington. 1879.

Annual Report of the Surgeon-General, United States Army. 1879.

Transactions of the Medical Society of the State of Pennsylvania. Philadelphia. 1879.

Annual Address before the American Academy of Medicine at New York, September 16, 1879. By Lewis H. Steiner, A. M., M. D., President of the Academy, etc. New York. 1879.

Paracentesis of the Pericardium. A Consideration of the Surgical Treatment of Pericardial Effusions. By John B. Roberts, A. M., M. D., Lecturer on Anatomy in the Philadelphia School of Anatomy, etc. With Illustrations. Philadelphia: J. B. Lippincott & Co. London: 16 Southampton Street, Covent Garden. 1880. (A. Williams & Co.)

The Physician's Daily Pocket Record. By S. W. Butler, M. D. Fourteenth Year. A very convenient little book. Edited by D. G. Brinton, M. D. Philadelphia. 1880.

THE BOSTON
MEDICAL AND SURGICAL JOURNAL.

VOL. CI — THURSDAY, DECEMBER 25, 1879. — NO. 26.

A PARTIAL REVIEW OF TWO THOUSAND CASES OF MIDWIFERY.[1]

BY JAMES AYER, M. D.

Craniotomy. — This is the most frightful and perhaps the most common of all methods of embryotomy, and I think myself fortunate with such a large number of cases to have been compelled to its adoption in two instances only, — both noted in the table.

Mrs. B., a healthy primipara, with narrow pelvic diameters, had been in labor twelve hours or more. The head entered the upper strait and advanced very slowly. The presentation was the first form, — anterior fontanelle to left sacro-iliac synchondrosis. The pains were regular and very strong, but at length all progress ceased, and two hours after the head was thoroughly impacted. The patient's mother, who was an old nurse, and possessed a good share of courage, was my only assistant. At a late hour of a cold winter night I returned home for instruments, and soon applied the forceps, but with great difficulty. Traction, long and strong, was continued for some time to no purpose. At last I found something more must be done. I proposed craniotomy to the plucky mother as a *dernier ressort ;* she replied, "Do as you think best, doctor. I am not afraid." Allowing the forceps to remain on, I passed Smellie's scissors along my finger as a guide and punctured the cranial bones, and on turning the handles freely a large opening was established. Withdrawing the perforator, compression and traction were freely made by the forceps, and blood and brain were evacuated in large quantity. Even then the head could not be removed. The sharp hook was soon introduced within the head and force continuously applied, and its delivery was rapidly accomplished.

The other case did not materially differ from the first, and it is unnecessary to describe it.

The mother made a good recovery, and several years after gave birth to a smaller infant before I could arrive at the house.

Hæmorrhage Ante Partum. — The extreme vascularity of the gravid uterus and the pressure of its contents both favor a tendency to hæmorrhage. I now speak of that form occurring in the last months of pregnancy. Congestion of uterine vessels may possibly produce it, but far the most frequent, in my experience, is partial detachment of the placenta. Rest, ice to the abdomen, astringents, for example, acetate of lead and opium, ergot and brandy, with acidulated drinks, and perhaps a tampon to the vagina, may prove sufficient to arrest it. Should these heroic remedies fail and profuse hæmorrhage continue, all that remains is to effect a speedy delivery. In such cases by prompt action I have usually succeeded in saving the mother, but losing the child. And in these examples, on examining the placenta, I have observed small coagula of blood adherent to the maternal surface.

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[1] Concluded from page 868.

Hæmorrhage post partum is still more alarming, and nothing short of complete and firm contraction of the uterus affords sure relief. When blood flows freely, ergot and brandy in large doses may be given ; the hand should be introduced, and in shape of the fist be kept firmly in the uterine cavity, and firm pressure be kept up on the abdominal walls, with ice applied outwardly, until the contractions expel the hand, and the organ assumes the form of a hard, round ball. Then, and not before, does the danger cease.

Post-partum hæmorrhage is always alarming, sometimes frightful, yet, fortunately, I do not recall a single fatal case in the course of my practice.

Puerperal Convulsions. — Under this head hysteric convulsions are excluded, although they frequently occur both before and after delivery, are always troublesome, but never dangerous.

The two forms which I wish to describe are the epileptic and the apoplectic. The only warning we usually have of this alarming complication of labor is the appearance of albumen in the urine, and œdematous swellings of the feet and legs of several weeks' duration. These symptoms are not infallible, but I think rarely fail. Four cases of convulsions are noted in the table, and others of prior date are distinctly recalled. In three cases convulsions occurred during labor, in one after its completion : two mothers and the children survived ; the other two and the children died.

If convulsive movements appear and the patient is plethoric or not anæmic, I promptly resort to free venesection, and have repeatedly witnessed the most favorable results. The convulsions usually return with the pains, but not with every uterine contraction. Ether is freely inhaled on the approach of a convulsion. The bowels are to be kept free by enemata, and urine to be drawn by the catheter when needful. If these measures fail in arresting convulsive action, at the first possible moment, even with the head high up, I apply the forceps and complete the delivery. The uterus is thus relieved of its burden, the presumable cause of all trouble. Yet convulsions may not cease on delivery ; for example, in the two fatal cases mentioned.

A respectable Irishwoman engaged my services for her approaching confinement. For six weeks before the expected event her feet and legs swelled excessively, with pitting on pressure. A liberal quantity of albumen was found in the urine from day to day; this was sensibly diminished by remedies. At length labor came on, and convulsions promptly appeared. The woman was plethoric, and I removed from the arm thirty or forty ounces of blood at once, but with little apparent benefit. Ether was constantly used. When the head had descended sufficiently I grasped it with the forceps, and quickly delivered a still-born child. Convulsions of great severity continued post partum; the breathing became stertorous, and fatal coma soon terminated her sufferings.

Convulsions Post Partum. — I will refer to a case of convulsions post partum, in which mother and child both recovered. Mrs. M., a robust, healthy primipara, passed through a tedious natural labor without accident, and I left the house with the feeling that "all 's well." In an hour or so I was hastily summoned to return, and found the woman violently convulsed, with distortion of features. At short intervals the convulsions returned. I attempted venesection, but in vain. Subsequently I called Dr. Minot to my assistance, and a second attempt was successful in removing twenty or thirty ounces of blood from the arm, and was followed by decided relief. Chloral hydrate, half a drachm in solution, was given by enema, at Dr. Minot's suggestion, and bromide potassium administered freely. The mother was soon able to nurse her child, and made a rapid recovery. The good effects of venesection were prompt and striking.

Puerperal peritonitis, either sporadic or epidemic, is an alarming malady, and generally fatal in its termination. Three sporadic cases are mentioned. Commencing with an irritated uterus, soon a large portion, or the entire extent, of the abdominal parietes become excessively tender and tympanitic. As to treatment, there is no reliable course recommended. Bleeding, when admissible, stands first; then calomel and opium in alternative doses, and sufficient to allay pain; ol. terebinth by mouth and in enemata to relieve tympanitis; turpentine stupes and poultices to the abdomen; quinine and brandy with nutritious diet; and injections of the uterine cavity with weak solutions of carbolic acid or permanganate of potash to correct the foul discharges. Death sometimes results from uræmia, but more frequently from septicæmia or pyæmia.

Dr. Ferguson says, "If we take the results of treatment adopted in various puerperal epidemics by various practitioners, we shall find that on a large scale one in every three will die with all the resources which medicine at present offers. To save two out of three, then, may be termed good practice in an epidemic season." Only one of my three cases, if I rightly remember, recovered.

In regard to the origin of this disease, either from erysipelas or scarlet fever, I have no personal experience. In no instance have I occasion to regret that I have been the vehicle or medium of transmitting the contagion, but I have always been scrupulously careful in my attendance on such patients.

Puerperal Mania. — Only one example of this affection is noted in the table. All those instances in which insane expressions are vented in the progress of labor, provoked by the severity of pain or exhausted condition of the nervous system, are ephemeral in their nature, and undeserving the title of mania. As I have full notes of the case mentioned, I will relate it: —

Mrs. W., of East Somerville, a healthy young woman, of nervous temperament, was safely delivered of second child, after a moderate natural labor of twelve hours' duration, April 18, 1872. During the labor she was cheerful, and such had been her history through the period of pregnancy, only that in the latter months she had been much interested and somewhat excited from attendance on "revival meetings" in the village. On the third day the secretion of milk appeared, and the child nursed freely. Everything went on smoothly till the seventh day, when I dismissed the patient. April 28th, three days after the last visit, I was hastily summoned by the husband, saying that "his wife was insane." On my arrival I found Mrs. W. greatly excited, talking incessantly and incoherently; she had requested that the clergyman should be called in, who responded to the call, and prayed with her before my arrival. Though highly delirious and excited, at my request she took medicine from me. Bromides were freely given, and cold applications to the head. On the 29th and 30th she rapidly grew worse, with incessant incoherent talking, and very little sleep at night. On the 31st, Dr. Tyler, superintendent of the insane asylum, was called in consultation, who gave a prognosis favorable to recovery, yet probably tedious in duration. The pulse at my first visit was 84, increasing to 100 and 120 per minute. At length the nurse, the only person who had any control over the patient, became exhausted. Removal to the Somerville asylum was recommended, which was safely accomplished, though there was much resistance, May 6th. Her improvement was slow, but in six months she was restored to her family cured. The babe was excessively nervous, and appeared to inherit the excitability of the mother.

Inversion of the Uterus. — I was once called late to a case of rapid delivery; the pains were severe, and the child came with a "rush" before my arrival. Immediately the placenta pressed down the vagina. On examination it was found adherent to the fundus uteri, though external to the soft parts of the mother. The pains continued vigorous, and soon the uterus became completely inverted, with placenta attached. This was quickly detached by peeling it off with the finger. The patient was on her back, with hips elevated and knees flexed. Ether was administered to slacken the force of the pains. Gentle but forcible pressure was persistently made on the fundus, which soon carried up the organ to its normal position. No further trouble followed, and the patient did well.

Rupture of the Uterus. — This fatal accident has occurred once only in my experience, and that many years ago. The patient, a poor Irishwoman, the mother of several children, had natural labor, and was progressing favorably. As the fœtal head descended the pains became intensely strong and persistent, but with little or no advance. I ran home, a short distance, for my forceps. Returning in a few minutes, I found the patient in a state of collapse, cold and almost pulseless. On passing the hand up a large circular rent was detected, half surrounding the cervix uteri. The fœtal head and body had receded beyond touch. Soon the poor patient expired, affording no opportunity for the liberation of the child.

After-Treatment. — Having concluded my remarks on individual cases, I desire to allude briefly to a few items on the after-treatment. Ovariotomists assert that the success of their operations is largely dependent on the rigid observance, by the operator, of the numerous precautions and minutiæ pertaining to his work, and subsequently the most careful and vigilant nursing. So the successful obstetrician depends greatly upon the scrupulous performance of little duties. Unless the nurse be competent and reliable, I always make it a point to look after the baby's cord. Imperfect tying and dressing the same may result in hæmorrhage, and is an occasional cause of death.

As to the mother's bandage or swathe, I usually apply it myself after delivery, and it affords grateful support to the uterus and abdominal walls, and also is an efficient guard against hæmorrhage and falling of the womb, and tends to preserve the good figure of the mother.

On the third day a dose of castor-oil is the old rule, but frequently omitted, and sometimes ridiculed, especially by those homœopathically inclined; but nevertheless it is good practice, and deserving of a good name. I generally prescribe it in lemon juice or other agreeable vehicle. After the bowels have been crowded and pressed upon for six months or more, it is reasonable to suppose that their contents have been very partially evacuated. The thorough action of this gentle cathartic affords more satisfactory relief than any number of enemata.

Imperfections of Infants. Cyanosis. — Two cases of cyanosis or "blue babies" are tabulated, in which the surface of the body is colored blue. This condition is produced by the existence of a direct communication between the right and left sides of the heart, or patency of the foramen ovale. The children died in two or three days.

Purpura Hæmorrhagica. — This affection appeared in two instances, in one two days from birth, with petechiæ on the chest and upper and lower extremities, followed by bleeding from the mucous surfaces of the gums, mouth, and bowels. Medication was unavailing, and soon the little sufferers passed away.

Spina Bifida. — One case is noted of imperfect development of the spinous processes of the lower lumbar vertebræ, from which protruded a globular tumor the size of a hen's egg. The infant nursed well. Strapping and a variety of applications were employed, but in vain; in three weeks the child died.

Two other cases are recalled, children of the same German mother. The first lived two or three months. In the last confinement a midwife was employed, and as the fœtal hips passed under the arch of the pubes the large vascular tumor burst, and the child was literally deluged with blood when I arrived; the infant gasped and died.

Imperforate Ani. — Three cases are noted, and two others of earlier date are recalled. In no case could the bowel be felt through the anus, or sensibly projecting; the anal depression was one inch in depth. The first two cases were children of the same mother, about two years apart. By advice of a consulting surgeon the first was not operated upon, and the second, precisely like the first, was allowed to take a natural course; the pains were allayed by opiates and ether. Both died after a week's torture. In the third case, similar to those related, an operation was performed, giving vent to meconium and affording temporary relief, but followed in a few days by fatal inflammation. The fourth case was a child of a mother whose first baby, five years before, died from a similar affection, in the country, after operation. The fifth case was a female child, with slight discharge of meconium through the urethra. A trocar passed up the rectum was followed by a discharge of meconium and slight relief, but succeeded by inflammation, fatal in a few days. Perhaps the death of these children could not be regretted, for if saved by an operation their lives would have been tormented and miserable.

Exstrophy of Bladder. — Many years ago Mrs. P., a Danish woman, under my care, gave birth to a child with malformation of the genitals and exstrophy of the bladder. The sexual organs were those of a male, but imperfectly formed. The front of the bladder was wanting, and the orifices of the ureters could be plainly seen dripping with water. Dr. Channing was invited to see the case, and other physicians. The appearances were precisely like those of Joseph Hayden, with which all gentlemen present are familiar. At my suggestion, a few years since, Hayden, who felt much sympathy for this sufferer, looked him up in East Boston, and procured an apparatus for the retention of his urine, similar to that used by himself. Subsequently he was operated upon at the Massachusetts General Hospital, I was informed, but with what results I am ignorant.

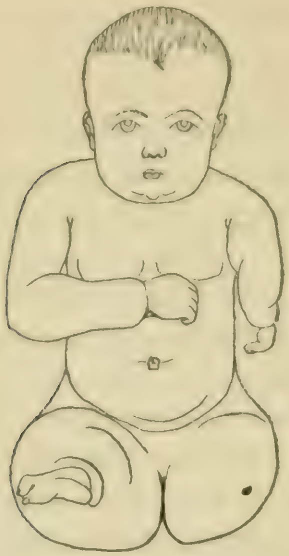
Intra-Uterine Amputation. — Mrs. W., a healthy lady of Scotch descent, and living out of town, was delivered September 24, 1871, after twelve hours' moderate labor, of a female child. This was her second daughter. The first was born in Boston five years before, after a severe labor of twenty-four hours, a perfect child. On the latter occasion I was called at three P. M.; found the waters had broken during the morning, and only occasional pains, and very slight. On account of the distance, I chose to remain over night; so at ten in the evening I lay down in an adjoining chamber, and was just beginning to doze, when at eleven o'clock I was summoned in great haste. Hurrying to the bedside, I found Mrs. W. had an expulsive pain. The presentation was natural, and the head now pressing firmly on the perinæum. In a moment the head and body were expelled by a single pain. The room was dimly lighted. The cord had a feeble pulsation. As the child did not cry, water was called for, and the face sprinkled, as is my usual custom. Immediately the baby gasped and uttered a faint cry; then the light was brightened, and my attention directed for the first time to the deficiencies of the infant. The placenta and membranes soon came away, but nothing more.

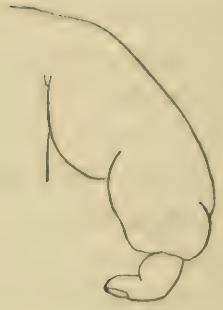
On the third day this feeble child nursed, but with little apparent prospect of being reared. Dr. D. H. Storer was taken out by me September 27th, on the third day from delivery. We carefully examined the child, and made the following measurements: —

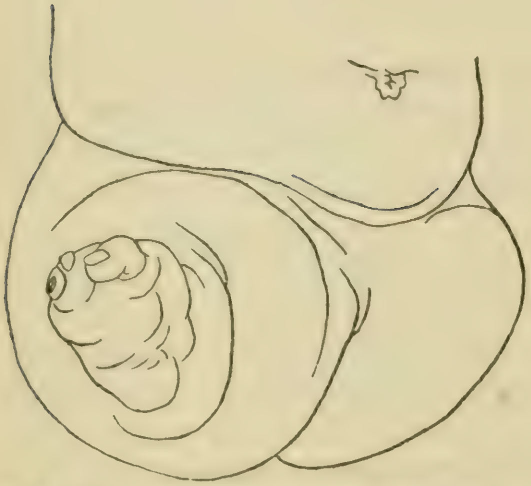
Net weight	3½ pounds.	Length of right arm and hand	6 inches.
Entire length of body and head	11½ inches.	Length of left arm . .	2½ inches.
Occipito-frontal circumference	11½ inches.	Length of left finger . .	½ inch.
Abdomen (umbilicus), circum.	9½ inches.	Length of left foot . .	1½ inches.
Chest (nipples), circumference	9½ inches.	Circumference of foot . .	1¼ inches.
Across the shoulders, circum.	3½ inches.	Circumference of thigh .	2 inches.

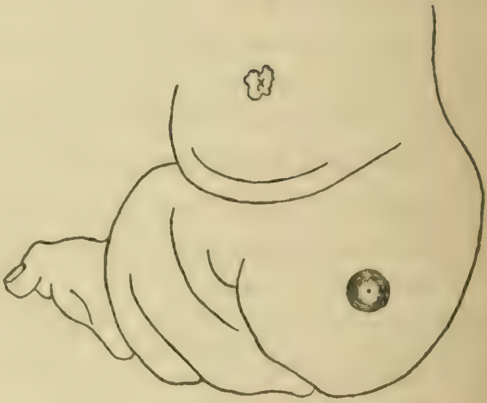
The body was symmetrical and the head well proportioned, with a narrowness across the sacrum. The left fore-arm was wanting, but the humerus perfect, terminating in one finger on the inner condyle. The right leg was composed of a crooked femur only, three inches long, terminating in a foot regularly formed, with a great toe and two other toes; that next the great toe and the little one are wanting. The genitals were normal, and the internal viscera performed their functions regularly. The imperfect limbs appeared like stumps from skillful amputations, finely healed and well rounded. On the fourth week an umbilical hernia occurred, from straining, the size of a shellbark. This was controlled by compress and bandage, and soon disappeared.

Instead of failing, as we anticipated, the little infant continued to thrive, as the breast milk was abundant, and increased in weight, improving also in features and beauty. When four months old she was successfully vaccinated. At nine months of age Dr. Henry P. Quincy visited the child with me, and made drawings and took the following measurements: —









Net weight	13¼ pounds.	Left arm and finger	5½ inches.
Length of body and head (sitting)	14¾ inches.	Foot and toe	2½ inches.
Occipito-frontal circumference	17 inches.	Thigh, circumference	11 inches.
Abdomen (umbilicus), circum.	17¼ inches.	Thigh, length	5 inches.
Across shoulders	7½ inches.	Foot, circumference	4 inches.
Right arm and hand	9 inches.	Single finger, length	1⅛ inches.

The family crossed the Atlantic last summer (1878) with the two children, and the little cripple was perfectly well while absent in Scotland, and returned in good health. She is now eight years of age, a beautiful girl, of lovely disposition, and remarkably agile for her condition, and can easily get around over the house and up and down stairs. A wonderful prodigy! — the pride of her parents and the light of their home.

CROUPOUS PNEUMONIA AND ITS RELATION TO PULMONARY PHTHISIS.

BY J. H. TYNDALE, M. D.

The pathology of croupous pneumonia in all of its three stages is at the present day one of the best understood chapters of inflammatory conditions. Two points, however, remain essentially unsolved, so far as general acceptance is concerned. These are: First, is croupous pneumonia an acute infectious disease, occurring as it does endemically on both hemispheres? Second, can or does croupous pneumonia ever lead directly or indirectly to pulmonary consumption?

The exudations in acute inflammatory processes are, broadly speaking, of three kinds: serous (with albumen), mucous (muco-purulent), and fibrinous. Serous infiltration or œdema is a condition which most frequently proves fatal in connection with acute infections or with organic disease. In its relation to consumption it is only of importance as a secondary manifestation. Mucous secretion takes place in the bronchioli and bronchi, and is represented by catarrhal pneumonia and capillary bronchitis. Fibrinous exudation takes place into the alveolar pouches (air cells) of the lung, and its representative is croupous pneumonia. This tells the whole story.

We come now to another fact about products of inflammation. The robustness of a person's constitution largely depends upon the quantity of granular living matter (protoplasm) within his organism, and its behavior. By "living matter" I understand living protoplasm, the most minute form of which we are thus far cognizant of being granules, granular living matter. The rapid coiling up into rows of red blood corpuscles is due to the presence of a certain quantity of fibrine, and is found only in persons who are capable of having active inflammations with fibrinous exudation. On the other hand, there are persons in whose blood the presence of comparatively numerous colorless blood corpuscles, the ready shrinkage of the red blood corpuscles, and their comparative sluggishness and imperfection in forming rows indicate less granular living matter everywhere and less fibrine. We have a person who in the course of an inflammatory process is not able to produce the usual products. Serous infiltration from venous stagnation and the formation of indifferent, inflammatory elements, which at best lead to the slow development of imperfect connective tissue, are the products of inflammation.

Let us apply these facts to pneumonia, where they will be found to explain all forms of inflammation of the lung in a simple manner. But I shall have to leave the consideration of this for a future article. In connection with croupous pneumonia, I will merely add that the true pathology being duly recognized, the theory of its being an infectious disease is not strengthened.

Thus much being premised, let me draw attention to the course of croupous pneumonia, and its relation to pulmonary phthisis. We know that croupous pneumonia affects the alveolar pouches, and, secondarily, the bronchioli, in the course of which an exudation, rich in fibrine, is poured out upon the surface of the mucous membrane, and there coagulates; that it never runs a chronic course, in the ordinary sense of the word; that in addition to an abundance of fibrine, transudation of serum from the blood-vessels takes place, as in catarrhal pneumonia; that the whole process is superficial, fibrine passing over the endothelial layer of the air cells, which single layer is subsequently lost by degeneration from pressure. The picture which I desire to have kept clearly before the mind is the quality and location of the inflammatory products.

In the complete exudation we find, microscopically, an exudation rich in fibrine, mixed with more or less red blood corpuscles upon the surface of the alveoli and bronchioli, inclosing within its meshes the desquamated epithelium (or rather endothelium) of the alveoli and some newly appearing inflammatory corpuscles, formed by swelling of increased granules of the protoplasm. In the tissues below we find, as in all inflammatory conditions, œdematous swelling and serous infiltration.

What now becomes of our products? Resolution, as is well known, is the rule, and the reason thereof is as follows: The lymphatics of the lung are free from pressure, and therefore active. Their first act is the absorption of the serous infiltration below the poured-out exudation. We merely notice the intermediate changes of discoloration, usually denominated red hepatization, which are due to the usual changes in the hæmation of the red blood corpuscles, a fact announced by me two years ago, and which any one can observe in the various stages of discoloration of a "black eye." The secretion of material having fully ceased, the covered endothelium of the alveoli at once resumes activity. In the case of this single layer of flat endothelium, pressed upon as it is by the exudation, degeneration takes place. The granules swell, become well marked, and the polyhedral bodies, as such, disappear. It is now pretty well established that these granules by swelling become converted into what we call "inflammatory corpuscles," or, in other words, that the inflammatory elements are swollen granules of the former protoplasm. By this active regenerative process the now inactive fibrinous props are detached, and raised from the alveolar walls. Not so in the bronchi. Here the ciliated epithelium undergoes what is falsely known as "mucous degeneration," and I think this change can be explained in a most striking manner. Some years ago, Schwalbe, in experimenting upon dogs by starving them, found within the epithelium of the salivary glands numerous bodies corresponding to mucous corpuscles, which evidently should have been previously expelled by the protoplasm. This he correctly attributed to the stagnation from non-use, inasmuch as the dogs had no occasion to chew. Let us transfer this picture to the superficial layer of the bronchial epithelium, covered as it is at the time with exudation. At first there is great activity in secreting mucus, until the mass of fibrinous exudation by pressure puts an end to it, while mucous corpuscles in large quantity must still be present within the protoplasm. Hence the finding of crowded mucous corpuscles within the superficial layer of bronchial epithelium, together with granules made visible by swelling. This swelling of the living matter (granules) alone can be spoken of as a degeneration, though in reality a regeneration, since the epithelial formation, as such, is lost; however, we call it a degeneration. The mucous corpuscles found here are retained secretion within the protoplasm, and nothing else.

We return to our products of inflammation. Active regeneration of ciliated epithelium in the bronchi and bronchioli makes expectoration possible by vibratory motion and the contractility of the bronchial walls with their longitudinal, transverse, and oblique fibres, which is slowly regained. The alveolar portion of the exudation is not expectorated. Of this fact I have become well satisfied, since coming to look upon the alveolar pouches with their flat endothelium as belonging to the lymphatic and vascular systems of endothelial formations. Flat epithelium or endothelium is made for absorption, and is represented in the alveoli by a single layer for the ready transmission of gases. In the alveoli the exudation undergoes fatty degeneration, which may be brought about by the now possible contact of the atmospheric air with the exudation. This, however, is entirely hypothetical. Certain it is that the fattily degenerated exudation is reabsorbed. At this stage of croupous pneumonia the lymphatics are quite free and intact. It is only in cases of changes in the connective tissue, secondary to inflammatory conditions leading to cirrhosis, that the lymphatics are not able to absorb readily.

Thus much for resolution. In the opposite direction we have death from purulent infiltration (gray hepatization of the olden times) and the possibility of gangrene. Neither of these conditions exists within the exudation, for an exudation has no blood-vessels, and for inflammatory processes blood-vessels are requisite. Both purulent infiltration and gangrene run their course in the connective tissue primarily. Remember that during the course of croupous pneumonia the subalveolar and subbronchial connective tissue is serously infiltrated (œdematous), and inflammatory corpuscles of course are formed; also that it requires a person with plenty of living matter to have croupous pneumonia. Now, where there is an abundance of living matter, there likewise the possibility for the formation of pus exists. Gangrene is oftenest caused by multiple thromboses in the bronchial vessels, which should carry on the nutrition of the lung at this critical period. But as they themselves are impeded by the presence of an uncommon proportion of fibrine within their calibres and those of their anastomoses with the pulmonary vessels, plugs readily form in the stagnant and slowly moving circulation of these parts. In the rare cases of demarcation, granulation, and casting off of the mortified portion we have before us an "acute cavity," so to speak. Should healing of the cavity take place (which is possible in those of the smallest size only), we should find here the first example of secondary changes in the lung, namely, shrinkage of connective tissue, local cirrhosis. These changes are secondary to a fully absorbed croupous pneumonia.

The second form in which cirrhosis may supervene is in the course of the disease, strictly speaking, but likewise after resolution has taken place. The factors upon which this occurrence depends are: (1.) The continuance of the exudation itself as a passive agent, it remaining *in situ* for more than a limited period. (2.) No increase in the œdematous infiltration of the connective tissue below, but partial regenerative activity, which, as von Buhl has shown, is still possible, even in the stage of beginning gray hepatization. (3.) Great debility of the patient, caused by the loss of a large quantity of material. The previously blooming person, whose full condition permitted of his having croupous pneumonia, has now changed into one of lessened powers of resistance, with less living and formative matter. Here the conditions for the proliferation of connective tissue or the development of the condition described as "desquamative pneumonia" are given. All this, remember, is independent of any active participation of the croupous exudation.

So here we arrive at a legitimate conclusion: *In croupous pneumonia no cheesy degeneration (water abstraction and shrinkage) of the fibrinous exudation occurs. Serous infiltration of the connective tissue below may lead to subsequent hyperplasia of connective tissue, partial cirrhosis, provided the fibrinous exudation remains after a prescribed period, and the patient's powers of resistance are thereby lessened.*

In addition to the above observations, I will mention von Buhl's conviction that cheesy pneumonia cannot result from croupous inflammation, a fact first announced by him in his work on Lung Inflammations, Tuberculosis, and Consumption.

A few words with regard to the pleura. It, too, participates frequently in the fibrinous exudative process, as we know. But reabsorption, unfortunately, does not always keep pace with that in the lungs. Still the net-work of lymphatics is very extensive, — so extensive that some observers have called the pleura a huge lymph sac. The same cirrhotic process is possible and does occur in the subpleural connective tissue, as in the lung. Retraction of the thoracic walls, with pressure upon the surface of the lung, is then often the first step to so-called "fibrous phthisis."

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RECENT PROGRESS IN OTOLOGY.

BY J. ORNE GREEN, M. D.

ONE of the most original and thoughtful works which has appeared for a long time is a little book by Dr. Woakes, of London, entitled Deafness, Giddiness, and Noises in the Head, an elaboration of several articles which have recently been published in medical journals. In it he calls attention to the influence of the vaso-motor nervous system upon the circulation of the labyrinth and middle ear, but more especially, and in a new way, he shows the connections and relations of the sympathetic nerve with other nerves and with various regions of the body, by which regions widely separated are brought into mutual nutritive correlation with each other. This vaso-motor dependence of one region upon an entirely different region, or rather reflex relationship of the two regions, he explains by the connections of the afferent and efferent fibres of the sympathetic.

Almost all the sensori-motor nerves contain in their sheaths vaso-motor fibres running from the tissues to the vaso-motor centre and afferent in their function, conveying impressions from the tissues to the ganglia or general vaso-motor centre. Some of these fibres are continually leaving the sheath of the nerve to enter ganglia of the sympathetic, where they communicate with the ganglionic caudate cells, thus bringing them into connection with other nerves entering the same ganglia from other directions. The efferent fibres follow a similar course from the general centre downwards along the anterior columns of the cord, giving off fibres to the sympathetic ganglia, which fibres after mingling with the ganglionic caudate cells pass to the coats of the arteries and regulate the calibre of those vessels.

The sympathetic ganglia Woakes regards as sub-centres not only capable of receiving and transmitting impressions independently of the general centre, but also forming of "correlating organs" through which afferent tissue impressions from one region are reflexly referred to a totally different region, "the afferent impressions being manifested through their medium as efferent impulses in the area to which they are thus reflected." The ganglia of the fifth and other cranial nerves are regarded also as sympathetic ganglia capable of similarly deflecting impressions. A vaso-motor impression from any region will declare itself by a dilatation of the vessels of that region to which the impulse is communicated, and it is stated that this dilatation or relaxation in arteries may allow from ten to twenty times as much blood to pass as when the vessel is in equilibrium. As the result of such dilatation continued for some time we may have trophic changes in the tissues to which this blood is distributed.

These general principles of possible reflex interdependence of distinct regions through these connections of the vaso-motor system are applied by Woakes to a number of diseases of the ear in a most ingenious and, in some cases, convincing manner. The very common inflammation of the tympanum occurring in children during teething he thinks is often due to such a cause: a part of the blood supply of the drum membrane is derived from a small artery arising from the internal carotid, whose vaso-motor nerves, the carotid plexus, come chiefly from the otic ganglion; fibres from the otic ganglion connect with the inferior maxillary. The irritation of the swollen gums sets up an afferent impulse, which, reaching the otic ganglion, is deflected as an efferent impulse to the carotid plexus presiding over the tympanal artery; as the result of this efferent impulse the blood-vessels are distended, exudation takes place in the tissues, the sensory nerves are pressed upon, and pain follows. The irritation being continued, suppuration occurs, and otorrhœa is established.

The well-known ear-cough is considered as due to vascular distention in the larynx produced by a reflex implication of the vaso-motor nerves. The course by which this reflex irritation is produced from the external auditory meatus, although less direct than in the preceding disease, can still be followed on the principles which Woakes has laid down, although it seems a much less satisfactory explanation than in some of the other instances he adduces. His explanation is that the vaso-motor fibres associated with the auricular branch of the vagus conduct their impression to the ganglion of the vagus, and thence through a sympathetic fasciculus to the cervical ganglion which furnishes the nervi molles to the arterial supply of the larynx, the external carotid artery and its branches; from this nervous impression thus communicated vascular distention results, which, when long continued, may cause actual trophic changes in the tissue. This vascular distention, with its accompanying sensory irritation, Woakes considers the cause of the ear-cough. The previously accepted explanation has been that, the auricular nerve of the meatus being irritated, the impulse was reflected through another branch of the pneumogastric, the superior laryngeal, which, causing spasmodic contraction of the crico-thyroid muscle, produced the cough, and the tissue changes which have been found to result in some few chronic cases were thought to be due to the violence to which the parts were subjected by the continued cough. To this

Woakes objects that the reflex manifestation from irritation of a sensory nerve is pain, and not muscular contraction, and he assumes that as there are no muscles in the meatus there are therefore no motor fibres in this auricular nerve, and the irritation of the sensory fibres alone could not produce the muscular spasm of the larynx. A reversed course of irritation occurs, Woakes considers, in those cases of pain in the ear associated with disease of the larynx, which have been noticed by Gerhardt and others; the inflammation of the larynx involves the superior laryngeal nerve, the vaso-motor elements of which convey waves of irritation to the superior cervical ganglion, where they are deflected to the nervi molles of the middle meningeal artery, which helps nourish the middle ear, and the result is pain and congestion in the "correlated region." A strong argument against his theory in these later cases is, however, the fact that in cases of ulcerative destruction of the epiglottis, as also in cancer of the larynx, where pain in the ear is often the most distressing symptom, inspection, at least in very many cases, shows no tympanic congestion whatever, and there are no tissue changes. The more simple explanation that irritation of one branch — the superior laryngeal — of the vagus produces reflex pain in another branch — the auricular — of the same nerve seems to be sufficiently satisfactory.

The most interesting and instructive application of these studies on the vaso-motor relations of the blood-vessels is in regard to giddiness. Experimental physiology and pathology have of late years pointed more and more strongly to the labyrinth, particularly the semicircular canals, as the organ which presides over the equilibrium of the body, or at least as the organ which is affected when the disturbance of equilibrium known as giddiness occurs. At the same time it was an undoubted fact that giddiness was noticed in many diseases of organs so remote from the labyrinth that the connection with that part could not be made out. It has remained for Woakes to show how this is possible.

The vascular supply of the labyrinth is derived from the vertebral artery; in close proximity to this, at the point of origin from the subclavian, is the inferior cervical ganglion of the sympathetic, which gives a rich plexus of nerves to the artery, with numerous branches to the brachial plexus. This same ganglion furnishes the chief inhibitory nerve of the heart, the inferior cardiac nerve. The peculiarity recorded by Drs. Moorhouse, Mitchell, and Keen that wounds of any branches of the brachial plexus caused the subject to fall to the ground without losing consciousness is considered due to the vaso-motor connections through this ganglion, the afferent impulse being reflected to the vertebral artery, which thus caused dilatation of the vessels of the labyrinth, pressure upon the endolymph, and resulting giddiness.

A fasciculus of the pneumogastric nerve is given off to this same lower cervical ganglion, and as the course of vaso-motor nerves which are associated with cerebro-spinal nerves is always opposite to that of the cerebro-spinal nerves, this fasciculus must convey impressions from the stomach to the ganglion. In the ganglion the impulse is deflected to the inhibitory nerves of the vertebral artery, and labyrinthine vertigo results, as in the previous case, from dilatation of the blood-vessels and pressure upon the endolymph.

Other instances are given of this correlation in the cases of shoulder-tip pain associated with indigestion and derangements of the liver, in cases of hiccough and of occipital headache, which it would be foreign to this report to notice here, but which are worthy of further study.

"It is to be noticed that the labyrinth is placed at the extreme periphery of the tract supplied by the vertebral artery; it will therefore be the first to appreciate the consequences of the wave of suspended inhibition communicated to it from the ganglion. The phenomena it occasions under these circumstances are of such a marked character that they cannot fail of attracting the patient's notice; whether the impression originates in the heart, the upper extremities, or the digestive organs, the first note of warning is thus usually struck in the labyrinth."

In regard to noises in the head, Woakes is less satisfactory than in any of the other subjects which he treats. He attempts to show that all of the so-called subjective noises are in reality objective, but so weak in intensity that they cannot be perceived objectively; that is, that for every noise experienced by the patient there exists a definite objective cause. Any minute criticism of the subject here would, however, be out of place, and it is only to be hoped that further studies in the same or other directions may confirm his observations.

PROCEEDINGS OF THE OBSTETRICAL SOCIETY OF BOSTON.

C. W. SWAN, M. D., SECRETARY.

JANUARY 11, 1879. *Case of Placenta Prævia under Somewhat Extraordinary Circumstances.* — DR. DRAPER read the case: —

A young unmarried woman, finding herself pregnant (her own uncle, over seventy years of age, being the father of her child, according to her allegation), applied by letter to an irregular practitioner to give her something to restore her catamenia; she was then about three months pregnant (September 12th). The "doctor" assured her of the danger of any such undertaking, and advised her to await her full term, when, if she would come to Boston, she would be provided by him with quarters and attendance, and her child looked after. She petitioned him again by letter to send her some medicine; he so far yielded as to send her some tincture of cotton-root, with directions to take teaspoonful doses. This, by her own account, produced no effect whatever. Her pregnancy went forward in spite of the most energetic measures on her own part to shorten it; she abused herself in many ways, taking drugs and violent exercise, and resorting to everything of which she heard, except the use of instrumental means. In October (four months) she had a very slight hæmorrhage. She concealed her pregnancy by lacing.

On Sunday, December 15th, just before going to bed, she took a tablespoonful of oil of tansy; it made her very sick and faint. Next day she tried to assist in the weekly washing, but fainted in the course of the work. Her aunt, with whom she lived, now made a formal expression of her suspicions, and the girl acknowledged the charge. On Tuesday, December 17th, she began to flow. She was now six and a half months pregnant. On Thursday, December 19th, she rode from her home in New Hampshire, near Lake Winnipiseogee, to Boston in the cars; she was still flowing moderately, and was under the impression that she would miscarry, as the effect of all that she had done. The doctor took her to his house, arranging to see her through her troubles in consideration of twenty dollars paid in advance as partial recompense. There was more or less flowing during the four following days, till, on Tuesday, December 24th, the flow of blood was considerably increased. There had been pain in the loins previously during the hæmorrhage, but on this evening, at seven o'clock, regular labor pains set in. In the course of the evening the attendant "doctor" examined his patient for the first time, and found the os uteri opening well, with the *placenta presenting*, and the head of the child behind it. He endeavored to push the placenta above the head, and having partially succeeded awaited events alone. At four A. M. the woman expelled a still-born female child, 40.6 cm. (sixteen inches) long, and weighing 1.36 kilog. (three pounds). The flowing stopped in great degree at this point, but the uterus failed to act, and the placenta was retained, so that the "doctor" removed it forcibly from the wall of the womb and delivered it.

The patient was exceedingly weak, and began to show signs of exhaustion, faintness, giddiness, sighing, dim vision, restlessness. The "doctor" applied stimulants without effect. Seeing the desperate nature of the case, he became alarmed, and left the girl in the care of his wife while he went after medical help for consultation. Just as he returned the woman died. He asserted most emphatically that he had done nothing whatever except the sending of the cotton-root to induce a premature labor, and that he had uniformly counseled the woman to await her full term. He signed the certificate of the causes of death, giving "childbirth" as the cause. There was no apparent disposition to conceal the facts in the case, and the letters from the girl to him exhibited evidence in confirmation of his statements.

Autopsy three days after death. Moderate post-mortem rigidity. The body presented an extraordinary pallor, a marble-like whiteness; there was no lividity of the dependent parts; the lips were colorless. The mammæ were large and contained colostrum. The vagina was relaxed, its rugæ obliterated; there was no hymen; the labia were large; clotted blood escaped from the vagina in considerable quantity during the digital examination.

Internal examination found no evidence of disease in the brain, thoracic or abdominal viscera, but all these organs and tissues were anæmic to the last degree. The stomach contained a little liquid having the appearance and odor of gruel; the walls of the stomach were healthy except as regards their pallor. The spleen was enlarged to twice its usual size, but without any appearance of disease otherwise.

The uterus lay in the pelvic cavity, like a large bladder; its walls were collapsed and relaxed. On removal with the adjacent organs (bladder, rectum, ovaries), it presented the following appearances: From os to fundus (outside measurement) its length was 20.3 cm. (eight inches), and its breadth at the fundus was 12.7 cm. (five inches); its weight (with the ovaries) was 638 grams (22.5 ounces). Its walls were pale on section, and varied in thickness from 20 mm. (three fourths inch) at the fundus to 4 mm. (one eighth inch) at the cervix. The uterine sinuses were well marked; no sign of inflammation in any part. The os uteri was widely patulous, admitting four fingers; around its margin the mucous membrane was thrown into proliferations or excrescences like large herpetic formations; the mucous lining of the cervix was bruised, but presented no actual laceration. The cervix was much shortened. The cavity of the womb contained a small amount of clotted blood lying free on its mucous lining. The placental site was on the left side, its lower margin approaching within two inches of the os uteri; it showed an irregularly roughened or lacerated surface, there being only a few spots of limited area over which the placental tissue had been wholly detached from the uterine wall. The inferior segment was ecchymosed, and the sinuses here were especially distended with blood. The low (cervical) attachment and forcible delivery of the placenta were evident, and were recognized without knowledge of the circumstances of the labor itself.

The left ovary contained a corpus luteum of the size of a large pea; its wall, of pale yellow color, was thickened and convoluted, so as to have obliterated the central cavity. The right ovary was pale and shriveled, and its section showed numerous old follicular cicatrices without any corpus luteum.

DR. CHADWICK doubted the propriety of calling the case one of placenta prævia, since no part of the placenta covered the internal os. He did not believe that such an implantation of the placenta as this would be likely to give rise to hæmorrhage previous to or during labor. — DR. DRAPER replied that, although the placenta in this case was not situated *over* the os uteri, so as to present in front of the head or other presenting part of the fœtus, thus constituting it a typical placenta prævia, its lower segment was attached so far down and so near the os uteri that the slightest initial dilatation of the latter could not occur without endangering the integrity of the placental circulation and developing an unavoidable hæmorrhage. He quoted Dr. Robert Barnes to the effect that a placenta attached over even a small extent of the orificial zone of the uterus (within three inches of the undilated os) must be in the way of such a dilatation as would be sufficient to allow the passage of the head, and hence would probably give rise to hæmorrhage. In the present case the lower attachment was within two inches of the os uteri.

FEBRUARY 8, 1879. *Intra-Uterine Injections.* — DR. CURTIS reported the case. The patient, thirty-two years of age, entered the City Hospital January 6th. The catamenia had been regular until eight weeks before entrance. Two days before admission she was seized with backache, dragging-down pains, and flowing, and on examination she was found to be aborting. The tampon was applied; the placental forceps were subsequently used, and a fetid ovum was delivered. The temperature rose to 100° F. Under these circumstances the uterine cavity was douched with a solution of carbolic acid (one to six hundred; that is, five ounces of a one to sixty solution in three pints of water) of temperature 110° F. The patient's temperature shortly descended to 98.8° F., and remained normal during convalescence. The uterus was washed out but once, as nothing offensive was afterwards noticed; its cavity then measured four and one half inches. There was no pain from the injection. — DR. FIFIELD stated that a certain number of very unpleasant deaths had occurred since the adoption of this method of treatment, and beside deaths, some very narrow escapes. In the fatal cases the strength of the solution used was very feeble indeed; even a one per cent. solution had been followed by death, according to the authority of some German publications. It would be better, Dr. Fifield thought, for public institutions rather than private individuals to assume the responsibility of this treatment. It is well known how fatal have been the results of the injection of fluids into the uterus, especially the unimpregnated organ, the fatality increasing with the lesser size of the uterine cavity. Dr. Fifield said that he could not deem intra-uterine injections safe, although he could not state in what proportion cases had been fatal, or to what extent untoward results have been due to the agent employed. The gynæcologists, he said, appear to have a wholesome fear of the procedure, and it had been stated by one of them, Dr. Miller, of Dorchester, that the uterine cavity would tolerate solid caustic when at the same time it would reject a few drops of water. — DR. MINOT remarked that the liability to danger differed with the disease and the condition of the uterus. If the os uteri were large, so that the fluid could run out as easily as it entered, the risk would be very slight, according to his experience. Almost any one, nowadays, he thought, in cases of septicæmia following parturition, especially if the lochia were fetid, would be anxious to use a solution of carbolic acid or an equivalent injected into the uterine cavity. In illustration he mentioned three cases: the first one he saw in Charlestown, in consultation with Dr. J. G. Dearborn. The patient who had aborted, exhibited very alarming symptoms: great tenderness of the abdomen, a high temperature, an exceedingly rapid pulse. Dr. Minot advised intra-uterine injection of a solution of carbolic acid once in four hours, which was thoroughly done. The temperature fell immediately, and the patient made a rapid recovery. The second case was seen at Allston, with Dr. Giddings. The patient had had a normal labor at term. Twenty-four hours later she had a chill, great pain in the abdomen, which was distended, and high temperature. The same plan as in the preceding case was recommended and adopted. The patient died thirty-six hours later, but there was no reason to suppose that she was the worse for the injections. In the third case inflammatory symptoms came on forty-eight hours after labor. Dr. Minot administered the injections with great care two or three times a day. The improvement was manifest, and the patient recovered. Dr. Minot stated that he always used vaginal injections of carbolic acid after labor if there was any fetor. He had also injected a very weak solution into the bladder, in a case of enlarged prostate with fetid urine, with very happy effect, the injection being repeated a few times, and the fluid allowed to escape immediately.

Retained Placenta after Abortion. — DR. MINOT stated that he had been called to Newburyport three weeks before, in consultation with Drs. Snow and Howe, to see a patient who had aborted three months previously, at about the eighth week, without known cause. Since then she had had frequent and at times profuse uterine hæmorrhage, and was much prostrated. Dr. Howe had detected a growth or tumor in the cavity of the womb, attached near the fundus. The patient being etherized, the womb was depressed and steadied by one hand applied externally, while two fingers of the other were introduced into the os, which was quite patulous, and the tumor was detached and removed. It was about as big as a walnut, and proved, on microscopical examination, to consist of placental tissue. The patient had no further bleeding, and recovered perfectly. Dr. Minot said that this was the fifth or sixth case of the kind that he had seen. The operation was greatly facilitated by etherization, which produced complete relaxation of the abdominal walls, and enabled one hand to grasp the uterus and hold it firmly, while the fingers of the other explored its cavity.

Cases of Missed Labor, So Called. — DR. RICHARDSON reported two cases of so-called "missed labor," and showed the specimens. The first was the case of a multipara, who became pregnant October 20, 1877. She gradually increased in size until the seventh month. From that time no increase in the size of the abdominal tumor was noticed. About the middle of July she had several pains, and made her preparations for the delivery, which she thought was about to take place. The pains gradually died away. The uterine tumor began to decrease in size, and she soon considered that she had not been pregnant. November 12th, while ironing, she was suddenly seized with pains, and the fœtus and placenta were soon expelled. She entered the Lying-In Hospital, and remained during the convalescence. The lochia lasted about six days. The specimen was apparently a fœtus of seven or eight months, and shriveled and wrinkled in appearance. The second case was that of a lady who, when six months pregnant, was startled by the receipt of news of a battle in which her husband had been engaged. From that time there were no fœtal movements felt. At the end of the nine months there were symptoms of labor, which, however, soon passed off. The history of the next eight years was one of supposed menorrhagia. The hæmorrhages occurred at intervals of varying length. She was finally obliged to take to her bed, and the physicians expressed but little hope of her ultimate recovery. She finally passed into the hands of a magnetic physician, under whose care she one day, while taking an electric bath, passed a mass of placental tissue, and the next day a fœtus almost completely ossified. From that time her health steadily improved, and she is now well. The specimens were shown. The cases were interesting from their rarity, and as calling attention to the existence of a class of cases which, if overlooked, may give rise at any time to septicæmia, or be the direct cause of frequent and dangerous hæmorrhages.

Epithelial Tumors of the Cervix Uteri. — DR. HOSMER reported the case. Patient in comfortable circumstances, thirty-four years old; married at twenty;

bore a child the next year. Three years later had a miscarriage in the early months, and since that time has not been pregnant. History of menstrual function satisfactory. Sought medical advice on account of a purulent leucorrhœa, which had existed for several months, and was steadily increasing, the discharge at times being quite offensive. The general condition was one of some depression, with slight loss of flesh and an exaggerated nervous susceptibility. Upon examination the finger detected two ovoid bodies protruding from the os. Their surface was smooth and regular, their substance quite firm, and without special sensibility. Through the speculum they appeared as two rather dark-red masses, in close contact, and well filling a circular area which had a diameter of three centimetres. Removal by excision was performed at once. The insertion of a pedicle upon the anterior wall of the cervix having been ascertained, one polypoid mass was seized with the forceps, and its attachment within the cervical canal was divided with scissors. It was found that one cut with the latter had released both tumors, the two having a common neck. The loss of the blood which they had contained changed them in size, shape, and color. The distance from the point at which the pedicle was divided, to the extremity of the longer portion was forty mm., to that of the shorter one thirty-five mm., and twelve mm. to the bifurcation which separated the two. The hæmorrhage, which was rather free was easily controlled by a plug of cotton. The position of the uterus was that of retroversion. Two months after the operation, the os and cervix were found to be perfectly healthy; menstruation had continued normally, and the leucorrhœa had ceased. The specimen was submitted to Dr. E. G. Cutler, who reports, "After a careful examination, I have no question that the growth you sent, and which was removed from the uterus, was epithelioma."

ST. LOUIS OBSTETRICAL SOCIETY.

Thursday, November 20th, the society held its annual meeting for the election of officers, which resulted as follows: president, L. Ch. Boislinière, M. D.; vice-president, G. M. B. Maughs, M. D.; recording secretary, Gratz Moses, M. D.; corresponding secretary, W. Coles, M. D.; treasurer, W. Hudson Ford, M. D.

Puerperal Fever. — After the election of officers, Dr. Maughs read a paper upon Puerperal Fever. He gave the history of the disease from the time of Hippocrates, quoting the record of a case written by him, showing that the father of medicine was familiar with it, and that it presented itself with the same symptoms then as now. From his time till about a hundred and forty years ago, it seems not to have been discriminated from other fevers. The first mention of it as an epidemic is in the records of Hotel Dieu in 1746, and within the memory of many of us its contagiousness has been a matter of dispute. The position taken by some that any fever in a puerperal woman is puerperal fever the doctor rejected, as altogether too broad; on the other hand, that it is a septicæmia, resulting from the absorption of septic matter, he regarded as only a part of the truth; nor did he agree with Fordyce Barker that it is an essential fever. He considered puerperal fever as a distinct disease, arising from a variety of causes, but all requiring the puerperal condition, namely, a hydræmic, necrobiotic, almost putrescent condition of the blood. As causes, he spoke of, first, septic causes, either heterogenetic, where the poison was brought from some outside sources, as a case of puerperal fever, erysipelas, or a cadaver, or autogenetic, where the poison originated in the parturient canal of the patient; second, traumatism, as rough or careless manipulation; third, exposure to cold, as the application of ice to the abdomen to arrest post-partum hæmorrhage; fourth, mental condition, as anxiety in cases of seduction, and perhaps some other causes.

In regard to the therapeutics of the disease, he thought our attention should be chiefly directed to prevention, and for this end one of the most efficacious means was vaginal injections of a solution of carbolic acid in glycerine and water. In the treatment of the disease he spoke of local treatment first; for this he used the solution of carbolic acid more frequently, injecting it not only into the vagina, but also into the uterus. With this he combined systemic treatment by quinine, muriated tincture of iron, tincture of veratrum viride (Norwood's), and where there was pain opium as it might be indicated, but he did not seem to regard it as the sheet anchor in combating this disease, as some writers do. He gave the histories of a number of cases which had occurred in his own practice, or had come under his observation, and stated that he had noticed a frequent association of puerperal fever with the exanthemata, especially erysipelas. The paper was extremely interesting, and will be brought up for discussion at the next meeting of the obstetrical society, December 18, 1879.

GOODELL'S LESSONS IN GYNÆCOLOGY.[1]

THE rapidity with which works on gynæcological subjects have appeared during the past two years shows the increased interest in this branch of medical science. We had thought the demand fully met; but the volume before us, from the pen of one high in authority, is an invaluable addition to gynæcological literature. As its title indicates, it consists of a series of lessons given in the form of clinics, in a clear and vigorous style which is full of the personal power of the author. The cases are presented with unusual vividness, and the book is not only instructive, but exceedingly pleasing.

It is no purpose of Dr. Goodell to cover the whole ground of gynæcology, as is usually attempted in our text-books, but he confines himself to a few important subjects in the department. Lesson VI. contains the fullest description of lacerations of the perinæum that we remember to have read anywhere. In Lesson XII. the author describes most clearly the action of the closed lever pessary, any definite account of which is wanting in our works on gynæcology. We are therefore exceedingly glad to find it well given here, as also the means for placing the pessary. We suppose nearly every gynæcologist has discovered from experience some method facilitating its introduction. For our own part we have found it much more readily placed by using the Sims speculum, the patient in the semi-prone position. Lesson XVI., on Lacerations of the

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[1] *Lessons in Gynæcology.* By WILLIAM GOODELL, A. M., M. D. Philadelphia: D. G. Brinton. 1879. 8vo, pp. 380.

Cervix Uteri, is exceedingly valuable, and is by far the most complete digest of the subject which has appeared. Taking up the causes of this injury, the writer shows how the accoucheur may be directly responsible for it by trying to make haste in the early rupture of the membranes, or by resorting to the forceps before the os uteri has become dilatable, or even by attempting to push up the thinned-out cervix over the presenting part. We are glad to see that a careful examination of his puerperal patient, not only immediately after labor, but just before giving up his attendance, is forcibly laid down as the duty of the obstetrician, in order that if a rent exist it may be discovered.

In Lesson XIX., on Polypus of the Womb, the author, in giving the usually advised methods of operating with the écraseur, describes procedures that seem to us less desirable and certainly longer and more perplexing than the simple application of traction with the vulsellum forceps and the direct cutting of the attachment of the pedicle with the scissors, which, if the point of attachment be in sight, is most readily done; if, on the other hand, it be concealed, these instruments can be guided to it by the finger. We have never seen any hæmorrhage occur when the polypus has been severed in this way. A secondary bleeding might take place, we are aware, and against this it is best always to guard by applying the tampon.

The lessons are universally good. If, however, we were to express any preference, it would be for No. XXVI., on Nerve Tire and Womb Ills, in which the author so well considers the relation of neurasthenia to diseases of the womb. It is our firm opinion that if this subject, here so forcibly presented, could receive the careful study of practitioners generally, many of their patients would be spared submission to extremes of practice, either local or constitutional; and such physicians would find in the rest, seclusion, massage, electricity, and feeding recommended a means of relief to a large class of cases among the most difficult they are called upon to treat.

We cannot altogether agree with the writer when he says on puerperal convalescence, in Lesson XXVII., that "there can be no sound reason why a woman should not sit up in bed or even slip into a chair whenever she feels so disposed." From this and other phrases we get the impression that he would favor a more speedy getting up after labor than is ordinarily adopted. Again quoting: "The lochia must be watched. If, in the third week after delivery, they still linger on, the inference may safely be drawn either that the cervix is the seat of unhealed laceration, or that the process of involution is interrupted." Now, possibly, this speedy getting up may be wise and altogether desirable in a case uncomplicated with such conditions as the above; but when any injury to the parts has been done we feel sure that the sitting up will only tend the more to interfere with the involution necessarily affected by such accident, and if the patient has been allowed to go on until the third week doing as she pleases in regard to position of the body, she has already done herself much harm before the symptoms indicative of the injury have presented themselves. All the remaining topics of this lesson receive our most hearty approval, being corroborated by our own personal experience.

In Lesson XXIX., on the Sexual Relations as Causes of Uterine Disorders, the author shows unusual power in his thorough and admirable treatment of this delicate subject. The facts here brought forward are those whose importance every practitioner must recognize, but which nearly all writers carefully avoid. The high sense of duty in the task undertaken in this volume, not less than the grave importance of the subject, permits our author to avoid nothing, and he has dealt with it most acceptably.

The book is a most valuable one, and should be possessed alike by him who is in any way interested in the subject of which it treats, and by him who desires to have a volume whose style is so pleasing that it becomes one of those in our American medical literature of which we are most proud.

A REVIEW OF THE YEAR.

In looking back at the year which is about to close, we find that it has been by no means barren of events replete with interest to the medical profession, and of value to medical science. The year opened gloomily enough, the whole world being seemingly threatened with one of those waves of disease which happily do not visit us oftener than once in a life-time. There were rumors of a terrible famine in China, while in Southeastern Russia that mediæval disease, the plague, was making its appearance, and threatening to put to the severest test all the theories and improvements of modern sanitary science. Until the trial had been actually made no one could say with certainty that the terrible experiences of the olden time were not again to be repeated. To give color to these apprehensions rumors reached us from an opposite quarter of the globe, Brazil, that famine and pestilence were in full sway there also. It is a matter of no small congratulation that science was equal to the task assigned her, and the world freed from the impending peril. Fortunately for this country, the warning came at the right moment, and our government was forced to its first great step towards the protection of the public health. It was on March 3d that the act creating a national board of health was finally approved, and the country felt itself in a measure prepared for the dangers that returning summer would bring. How well these have been met and the nation protected is still fresh in the minds of us all. It can be well said that this year has been one of the most instructive in the annals of sanitary science.

The care of the insane has been another subject which has received some attention; there has been indeed a good deal of unwise agitation of the public mind, but the profession is also actively seeking to ameliorate the condition of this unfortunate class of the community, and can, we think, be safely intrusted with the task. There has been considerable discussion in England as to the conformation of the body which regulates the practice of medicine in that country; little has been done in this direction in the United States, but it is constantly receiving more attention from practitioners, and we hope soon to present the subject to our readers, giving an account of the present state of license laws in this and other countries.

Among the principal events of the year we may call attention to the large medical gatherings at Cork, at Atlanta, and later at Brussels, which gave evidence of as active an interest on the part of the profession as in former years.

We regret to be obliged to chronicle the loss of many celebrated men during the year. In our own city two of our brightest lights were extinguished; the death of Dr. Jacob Bigelow followed close upon that of Dr. J. B. S. Jackson. In Philadelphia many men have passed away whose names remind us of the prestige she has always maintained in medicine, — the venerable Dr. George B. Wood, Dr. Isaac Hays, whose career as editor of our leading medical periodical has given him a world-wide reputation, Dr. John B. Biddle, and Dr. James Aitken Meigs. New York has lost Dr. James Freeman Bumstead, and the nation Dr. John Maynard Woodworth. In London, Dr. Murchison, Dr. Tilbury Fox, Mr. Maunder, and Mr. Callender, our recent guest, have passed away. France has recorded the deaths of Tardieu, Bazin, and Dévergie. Germany has met with the loss of Neubauer, Trommer, and many others.

It is pleasant to turn from this sad record, and to recall the pleasant gathering at Philadelphia, when the services of our distinguished fellow-countryman, Professor Gross, met with such merited recognition, and to the recent homage paid by his colleagues in literature to Dr. Holmes.

For the year on which we are about to enter we are happy to say that the prospect is as favorable in regard to the health as to the prosperity of the nation.

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A NATIONAL HEALTH ORGANIZATION.

We have briefly sketched, in a previous number of the Journal, the work which the National Board of Health has accomplished. The question of a permanent sanitary department for the nation is to be decided by Congress this winter; the National Academy of Sciences has appointed a committee, of whom our distinguished fellow-citizen, Professor Gibbs, is one, to consider and advise upon the matter; the National Board of Trade has also done the same thing, and the present National Board of Health has received such hearty support from sanitarians, railroad companies, steamship lines, and business men generally that its present organization will probably continue without essential change, as it should, especially as its strong friends in the last Congress have become even more convinced of the value and necessity of such a board than they were a year ago. Of course, there are many medical politicians and disappointed office-seekers who wish to have matters different, and not being able to do so take every possible means of placing obstacles in the way.

There are many subjects of great scientific and practical interest to the country at large, which can be investigated thoroughly only by a national board supplied with an abundant appropriation to enable them to employ the best talent in the work; and it is of the greatest importance that such inquiries should go on as rapidly as possible, for sanitary science does not begin to keep up with the rapid advance of the most intelligent people and their demand for better means of protecting health. The yellow fever investigation has been admirably begun by the Havana commission, as any one must acknowledge who has read their report, and it should be continued; but the greatest work of the National Board of Health for many years will probably be in inland and maritime quarantine, in educating the country in general up to understanding the needs of their various sections, and in performing such valuable work as has been lately done in Memphis, namely, furnishing competent and unbiased advice to people who want to do the best thing possible in the way of municipal sanitation.

At the South, the best people are making a heroic struggle to save what they can from the wrecks of their fortunes; the bummers and carpet-baggers have overloaded them with an iniquitous debt, the burdens of which, it is true, in many cases they propose to avoid; many of the business men have gone there only to make all the money they can, and leave without doing any more than they are compelled to for the benefit of the country, and most of the negroes, being deprived of the care of their former masters, have in their ignorance allowed their shanties to become filthy to an extent not known before the war. It is the less to be wondered at, therefore, that in Memphis, for instance, just as in Salem, Lynn, New Bedford, Gloucester, and many other places in our State, there has been a hope to escape from the evils of bad sanitary conditions for a few years more, until the people felt able better to bear the great burden of expense for municipal improvements; for Memphis is not so terribly worse than other places nearer home, as the uninformed might be led to think. Of course, there is no real sanitary organization anywhere in this country except in a very few places; the disastrous interference with travelers and with commerce during the past two summers, by numerous petty "boards of health," amply demonstrated this fact, and also that travelers, merchants, railroad companies, and steamboat lines do not propose to submit to any such nonsense much longer. The judicious management and sensible rules of the National Board of Health fully satisfied all these people as soon as they were put in force; and here alone would be an abundant field for the future of the National Board of Health, even if there were no other reasons for continuing it, as we have shown that there are.

MEDICAL NOTES.

NEW YORK.

— The thirty-second anniversary meeting of the New York Academy of Medicine was held at the Academy's hall on Thursday evening, December 11th, and was very largely attended. The annual address, which was on the subject of The Academy as a Teacher, was written by Dr. Leroy M. Yale, but as the latter was suffering from laryngitis, it was read by Dr. Frederick A. Castle, secretary of the County Medical Society. After congratulating the Academy on its growth since the day when its Fellows met in a room over a coal-yard, and on its present brilliant prospects, the writer spoke for some time on the subject of preparatory medical education, and the relations to it of the most influential part of the profession as represented by the Academy. The enlargement of the field of usefulness of the latter institution was discussed in the remainder of the address. It had been proposed, he said, to have a series of lectures on scientific subjects delivered before the Academy, but the council had been unable to put this plan in operation because there was no fund for paying the lecturers, and it could hardly be expected that their services should be given gratuitously. Either scientific men would have to volunteer for this purpose, or else an appeal be made to the laity to furnish the necessary money. There were many wealthy individuals in New York who were in the habit of contributing liberally to various institutions, and he had no doubt that some of them, if the matter were properly brought before them, would be willing to assist the Academy in establishing such lectureships. Again, the subject of original investigation was one that should claim the attention of the Fellows. Every institution of learning should have a double function, — the teaching of that which was known, and the investigation of that which was still unknown. These investigations were generally costly, and involved the expenditure of much time and labor, but there were no means provided for them in New York, and medical men, as a rule, could not afford to devote their energies to them. Hence it was to be hoped that at no distant day the Academy would begin to exert its influence in this direction also. In concluding his discourse, Dr. Yale suggested that a museum ought now to be founded by the Academy. There was already much valuable material, he said, in the possession of private practitioners, who were not willing to donate it to institutions in which they felt little or no interest, but who would be most happy to part with it for the benefit of a society which was established for the good of the whole profession, was unhampered by restrictions, and was not governed by any clique. The Academy has just received a very valuable acquisition to its treasures in the library of the late Dr. Bumstead, who bequeathed it to it at his death. It is probably the most complete in the country on the special subjects to which it is devoted, and it is said that it will always be kept distinct, and known as the Bumstead collection.

— On the night of December 6th a fire occurred in the southern pavilion of Bellevue Hospital, occupied by medical wards for women and children, which, unhappily, resulted in the death of one of the former and three of the latter. The nurse in charge reports that when she first discovered the fire she was at the east end of the ward, about one hundred feet from where it originated, which was in an apartment occupied as a store-room for ward clothing and medicine, and that she was unable to find any cause for its origin. The three children died from suffocation, and the woman, who was in the last stages of phthisis, expired shortly after being removed to another building. All the other patients, twenty-five in number, were safely carried to other wards, and the hospital warden speaks in the highest terms of the presence of mind of the nurse, and the valuable assistance rendered in the emergency by the medical and surgical house staff and the various hospital attendants.

— A curious case of extraordinary tenacity of life has been reported from Paterson, New Jersey. A few days ago a boy, about fourteen years of age, had his cranium almost cut in two by a circular saw, and although the brain was nearly severed to the base he was at the latest advices still alive. The wound commenced near the right nostril and extended upward and backward for a distance of eight inches through the head, the probe showing that it had penetrated very deeply into the substance of the brain. While the patient was being carried to the hospital a comatose condition came on, which was, however, of short duration, but which was followed by partial paralysis of the left arm and left side of the face. Since then the patient has been at times perfectly conscious, and at times delirious, while he has sometimes suffered a good deal of pain, and again has been apparently quite free from it. On the second night after the injury the paralysis extended to the left lower extremity, the pulse began to fail, and he seemed to be sinking rapidly; but afterwards he again rallied, and when last heard from there seemed to be a prospect of the boy's surviving some time longer.

NEW ORLEANS.

— A correspondent writes us as follows under date of December 3d: Dr. Joseph Holt, one of the sanitary inspectors of this city, has published[1] a brief account of the appearance of yellow fever in New Orleans during the past summer. A complete record is given of all the cases observed, many of the cases being verified by personal observation. It appears from this report that forty-one cases of yellow fever occurred in this city during the summer, all of which were whites; nineteen of these were natives of New Orleans, two of the State of Louisiana, outside the city, and twenty from abroad. It is believed that this record comprises all the cases that have occurred, as the physicians of the city, in the words of Dr. Holt, "have been singularly mindful of their duty to the public, and have uniformly reported promptly their cases, suspicious or assured."

This paper of Dr. Holt takes rank with the report of Surgeon A. A. Woodhull, U. S. A., in the epidemic of yellow fever at Savannah in 1876. It is a plain, unvarnished record of *facts*, something rare in the history of this disease outside of the reports mentioned. As in Savannah Colonel Woodhull traced the origin of the disease to three distinct centres, between which no causative connection could be shown, so in this city Dr. Holt demonstrates the "spontaneous" occurrence of the disease in five distinct and separate parts of the city. The "air and soil pollution," so graphically described by Surgeon Woodhull as prominent characteristics of the infected localities in Savannah, had exact parallels, according to Dr. Holt, in this city last year, and to a somewhat less degree during the summer just past. The present writer has personal knowledge that the conditions of Memphis in 1878 and 1879 were strikingly similar to those of this city, and an almost exact counterpart of those of Savannah in 1876.

The following extracts from Dr. Holt's paper may be accepted as conclusions fully justified by the evidence presented: "The infected locality comprised an area of forty-five squares, known as the fourth municipal district.

"There is not the slightest evidence upon which could be founded a *suspicion* that the infection was brought into this area by importation of any kind. . . . . Outside the infected area seventeen cases occurred, one imported by ship, and four from Morgan City, an infected place. There is no authenticated instance of the disease having been communicated to any one by an imported case."

The reason why the disease did spread and assume an epidemic form in Memphis, and why it did not spread in New Orleans, is probably contained in these paragraphs: "The city authorities, the State Board of Health, assisted by the National Board, and the Auxiliary Sanitary Association concentrated their utmost efforts in the sanitation of the infected area, and, indeed, accomplished the actual and complete cleansing of this part of the city. The pestilence subsided coincidently with the thorough cleaning of this locality.

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[1] New Orleans Medical and Surgical Journal, September and December, 1879.

"Of three things we are certainly assured: We know that perfect sanitation is the one great experiment yet to be tried in the solution of the yellow fever problem; that the disease has ceased to occur epidemically in certain cities, heretofore scourged, coincidently with an improved municipal sanitation; and, finally, that every city, town, or ship in which the disease breaks out and spreads is a city, town, or ship in a *foul and most unsanitary* condition."

It is doubtless to the labors of such men as Drs. Woodhull and Holt that we must look for the ultimate solution of the problem of the origin and spread of yellow fever.

— Dr. C. F. Folsom, of Boston, and Dr. Billings, of the army, were in New Orleans two days ago, consulting with representatives of the commercial interests of the city with reference to establishing a national quarantine station at Ship Island in the Gulf of Mexico.

— The health of the city remains excellent, the death-rate for last week being only a small fraction over twenty per thousand.

SHORT COMMUNICATIONS.

THE NATIONAL BOARD OF HEALTH.

Mr. Editor, — The Journal for December 11th, page 853, contains a letter evidently written or inspired by some one in intimate relations with the United States Marine Hospital Service, if not at some time an officer of it; and his statement of what he calls "our position" may probably be taken as meaning the position of that service. Other anonymous articles have been published, it is true, of a similar character and from a kindred source; for it is well known that the United States Marine Hospital Service is very desirous that the National Board of Health should be abolished and its duties and powers transferred to the supervising surgeon-general of the marine hospital service, — a position which has been already condemned in strong terms by the united voice of the sanitarian and medical profession of the country. Some of the statements in that letter are so untrue that I feel it my duty to reply to them. It is not true that Dr. Woodworth was the man who above all others was the moving spirit in making the Public Health Association a success, as every one of the older members of the association knows. Dr. Woodworth, too, did his best, up to the last moment, to prevent the organization of the National Board of Health; and all its work has been on a different basis and carried out in a different way than he proposed and planned. It is not true that the work of the board, as insinuated, is the same as that projected by him. The statement that "all the power of the board during the past summer has been vested in one man" is untrue, and insulting to the gentlemen who compose it, as are the insinuations of intrigues for the present arrangement of officers of the board and in regard to the refrigerating ship. The statements concerning the inspectors of the board are false. The resolutions adopted at Nashville represented the opinions of the sanitarians assembled there, otherwise they would not have passed; no one of the National Board of Health was on the committee which framed them. Having been present at the Nashville meeting, I think I have a right to express the opinion that there was a general and strong wish to know just what President Cabell stated in his address.

I have no desire to appear as the advocate of the National Board of Health, for it can be safely left to the judgment of competent and disinterested persons who will soon have an opportunity of studying its report; but I do protest against respectable journals publishing calumnious letters without giving the names of their authors, if at all. That there should be some way of bringing them to the light and making them responsible for what they say seems to me very clear. Let us have a code of ethics at once. CHARLES F. FOLSOM.

[We had the customary securities for the good faith of our correspondent, to whom we leave the defense of his views, feeling in the mean time no uneasiness in behalf of our "respectability." The opinions and statements of our correspondent do not appear for the first time in print in his letter, and if erroneous or false it is better that they should be corrected or exposed. Public affairs must bear public discussion. — ED.]

PERINEAL LACERATIONS.

MR. EDITOR, — The cicatrix referred to on page 883 (JOURNAL, December 18th) was *two thirds of an inch* long, instead of an inch and a half, as reported. I have had several extensive perineal lacerations in my practice (not one only, as stated in the report), and have used stitches in all but the case mentioned, with good results, except in one, in which the union was incomplete. My remarks had reference mainly to the slight lacerations which are comparatively frequent, and are usually regarded as of no serious importance.

S. L. ABBOT.

REPORTED MORTALITY FOR THE WEEK ENDING DECEMBER 13, 1879.

Cities.	Population estimated for July, 1879.	Reported Deaths in each.	Deaths under Five Years.	Percentage of total Deaths from				
				The Principal "Zymotic" Diseases.	Lung Diseases.	Diphtheria and Croup.	Scarlet Fever.	Typhoid Fever.
New York	1,085,000	480	181	20.63	18.13	7.71	1.88	1.67
Philadelphia	901,380	282	68	10.99	7.09	4.96	.71	2.48
Brooklyn	564,400	212	84	18.49	23.58	12.74	.47	—
Chicago	—	151	73	37.75	3.97	23.18	5.96	2.65
St. Louis	—	97	34	18.56	8.25	5.15	—	2.06
Baltimore	393,796	141	54	24.11	6.38	7.80	11.35	3.55
Boston	360,000	134	49	17.16	8.96	10.45	—	.75
Cincinnati	280,000	75	28	17.33	6.67	2.67	4.00	6.67
New Orleans	210,000	70	31	10.00	8.57	1.43	—	—
District of Columbia	170,000	—	15	—	—	—	—	—
Cleveland	160,000	48	28	33.33	4.17	8.33	20.83	2.08
Pittsburgh	—	52	24	26.92	15.38	11.54	3.85	3.85
Milwaukee	127,000	29	17	27.59	17.24	20.69	3.48	—
Providence	101,500	40	16	55.00	2.50	10.00	40.00	2.50
New Haven	60,000	25	14	12.00	12.00	4.00	—	—
Charleston	57,000	32	14	9.38	6.25	—	—	3.13
Nashville	27,000	12	4	33.33	—	—	—	16.67
Lowell	53,300	15	4	—	6.67	—	—	—
Worcester	52,500	16	5	31.25	12.50	6.25	6.25	6.25
Cambridge	50,000	18	2	22.22	11.11	5.55	—	11.11
Fall River	48,500	—	—	—	—	—	—	—
Lawrence	38,200	12	4	8.33	25.00	8.33	—	—
Lynn	34,000	11	—	9.09	—	9.09	—	—
Springfield	31,500	14	6	21.43	—	21.43	—	—
New Bedford	27,000	16	6	6.25	6.25	6.25	—	—
Salem	26,400	11	4	45.45	9.09	27.27	9.09	9.09
Somerville	23,350	4	—	—	—	—	—	—
Chelsea	20,800	6	2	66.67	33.33	66.67	—	—
Taunton	20,200	9	—	22.22	11.11	22.22	—	—
Holyoke	18,200	8	4	25.00	12.50	—	25.00	—
Gloucester	17,100	6	4	83.33	—	—	83.33	—
Newton	17,100	3	1	—	—	—	—	—
Haverhill	15,300	7	—	28.57	—	14.28	—	—
Newburyport	13,500	3	0	—	—	—	—	—
Pittsfield	12,650	5	—	20.00	40.00	20.00	—	—
Fitchburg	12.500	4	1	—	—	—	—	—
Milford	9,800	0	—	—	—	—	—	—

Two thousand and forty-eight deaths were reported : principal "zymotic" diseases (small-pox, measles, diphtheria and croup, diarrhœal diseases, whooping-cough, erysipelas, and fevers) 427, consumption 336, lung diseases 240, diphtheria and croup 186, scarlet fever 78, typhoid fever 43, diarrhœal diseases 39, whooping-cough 28, measles 22, erysipelas 14, malarial fevers nine, cerebro-spinal meningitis six, small-pox two. (In addition, District of Columbia reports 16 deaths from consumption, lung diseases eight, diarrhœal diseases two, scarlet fever, whooping-cough, and typhoid fever one each, — total deaths not given.) In the cities excluding the District of Columbia, from *whooping-cough*, New York, eight, Philadelphia six, Boston three, Chicago, New Orleans, Pittsburgh, and New Haven two, Baltimore, Cleveland, and Providence one; from *measles*, New York 14, Chicago four, Brooklyn two, Philadelphia and Boston one; from *erysipelas*, New York four, Brooklyn three, Chicago and St. Louis two, Cincinnati, Pittsburgh, and Milwaukee one; from *malarial fevers*, New York seven, Brooklyn two; from *cerebro-spinal meningitis*, St. Louis two, New York, Philadelphia, Chicago, and Charleston one; from *small-pox*, Worcester two.

Consumption, measles, fever, and erysipelas were more fatal than in the previous week; lung diseases, malarial fevers, and diphtheria less so. In the 20 Massachusetts cities and towns, with an estimated population of 853,400, diphtheria and consumption were more fatal, scarlet fever, whooping-cough, typhoid fever, and lung diseases less so. Small-pox was imported to Worcester from Canada; the cases have been isolated, and the disease does not appear to be spreading.

The meteorological record for the week in Boston was as follows: —

Date.	Barometer.	Thermometer.			Relative Humidity.				Direction of Wind.			Velocity of Wind.			State of Weather.[1]			Rainfall.	
	Mean.	Mean.	Maximum.	Minimum.	7 A. M.	2 P. M.	9 P. M.	Mean.	7 A. M.	2 P. M.	9 P. M.	7 A. M.	2 P. M.	9 P. M.	7 A. M.	2 P. M.	9 P. M.	Duration.	Amount in Inches.
Dec. 7	29.789	50	58	43	87	48	54	63	SW	W	SW	13	28	12	R	C	C	—	.35
" 8	30.206	42	51	39	67	100	57	75	SW	W	N	4	7	10	O	R	O	—	.08
" 9	30.549	33	42	30	69	63	69	67	N	E	E	13	17	9	C	C	C	—	—
" 10	30.232	44	53	33	89	76	100	88	0	SE	S	0	12	14	O	O	R	—	.03
" 11	29.800	52	63	40	94	83	68	82	S	SW	NW	17	21	7	O	O	R	—	.14
" 12	30.199	34	41	27	63	38	47	49	NW	N	NW	10	11	5	O	C	C	—	—
" 13	30.691	28	35	21	74	38	56	56	N	E	NE	8	6	7	F	F	F	—	—
Week.	30.209	40	49	78				69		SW								29.40	.60

[1] O., cloudy; C., clear; F., fair; G., fog; H., hazy; S., snow; R., rain; T., threatening.

For the week ending November 22d, in 149 German cities and towns, with an estimated population of 7,483,715, the death-rate was 23.4 against 22.6 of the previous week. Three thousand three hundred and sixty-six deaths were reported: pulmonary consumption 455, diphtheria and croup 196, diarrhœal diseases 187, scarlet fever 96, whooping-cough 49, typhoid fever 42, measles and *rötheln* 36, puerperal fever 19, small-pox (Dantzic) one. The death-rates ranged from 9.1 in Potsdam to 41.8 in Crefeld; Dantzic 28.6; Munich 33.2; Dresden 17.9; Berlin 23.2; Leipsic 22.8; Hamburg 27.7; Hanover 14; Bremen 20.6; Cologne 20.0; Frankfort 13.6. In the same week, Vienna 24.7; Paris 24.8.

For the week ending November 29th, in the 20 English cities, with an estimated population of 7,383,999, the total death-rate was 25.2 against 24.7 of the previous week. Three thousand five hundred and sixty-seven deaths were reported: diseases of the respiratory organs 576, scarlet fever 190, measles 172, whooping-cough 83, fever 53, diarrhœa 35, diphtheria 15, small-pox (London) three. The death-rates ranged from 15.4 in Portsmouth to 34.4 in Plymouth; London 26.0; Brighton 21.7; Bristol 26.3; Birmingham 24.6; Liverpool 28.6; Manchester 24.9; Leeds 26.8. In Edinburgh 20, Glasgow 17, Dublin (two deaths from small-pox) 31. In 26 cities and towns in Belgium of more than 10,000 population, the death-rate was 27.3; in 25 smaller towns 28.9, lung diseases being extremely prevalent and fatal. The acute diseases next in order are diarrhœa, small-pox, typhoid fever, measles, whooping-cough, croup, scarlet fever, diphtheria. Antwerp 22.9; Ghent 22.0; Brussels 22.9; Liege 16.7.

OFFICIAL LIST OF CHANGES OF STATIONS AND DUTIES OF OFFICERS OF THE MEDICAL DEPARTMENT U. S. ARMY, FROM DECEMBER 13, 1879, TO DECEMBER 19, 1879.

FORWOOD, WILLIAM H., major and surgeon. Relieved from duty in Department of the South, and to report in person to commanding general, Department of the Platte, for assignment to duty. S. O. 280, A. G. O., December 12, 1879.

CLEARY, P. J. A., captain and assistant surgeon. Assigned to duty at Plattsburg Barracks, New York. S. O. 225, Department of the East, December 18, 1879.

PAULDING, H. O., captain and assistant surgeon. Granted leave of absence for twenty days from January 10, 1879. S. O. 224, Department of the East, December 17, 1879.

APPEL, D. M., first lieutenant and assistant surgeon. His leave of absence extended one month. S. O. 143, Division of the Missouri, December 17, 1879.

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SUFFOLK DISTRICT MEDICAL SOCIETY. — A regular meeting will be held at the hall, No. 19 Boylston Place, on Saturday evening, December 27th, at seven and a half o'clock. The following papers will be read: Dr. David Hunt, Harvard University and Medical Reform; Dr. Hamilton Osgood, Medical Missionary Work in Japan, by Dr. W. W. Keen, of Philadelphia. Supper at nine o'clock. T. M. ROTCH, *Secretary.*

THE GYNÆCOLOGICAL SOCIETY OF BOSTON. — The twelfth annual meeting will be held at the Medical Library Rooms, 19 Boylston Place, on the first Tuesday of January, at four o'clock, A. M. Election of officers and other business pertaining to the first of the year. HENRY M. FIELD, M. D., *Secretary.*

BOOKS AND PAMPHLETS RECEIVED. — Outlines of the Practice of Medicine, with special reference to the Prognosis and Treatment of Disease. With Appropriate Formulæ and Illustrations. By Samuel Fenwick, M. D., Lecturer on the Principles and Practice of Medicine at the London Hospital, etc. Philadelphia: Lindsay and Blakiston. 1880. (From A. Williams & Co.)

The Theory and Practice of Medicine. By Frederick T. Roberts, M. B., B. Sc., F. R. C. P. With Illustrations. Third American from the Fourth London Edition. Philadelphia: Lindsay and Blakiston. 1880. (A. Williams & Co.)

Transactions of the Twenty-Ninth Anniversary Meeting of the Illinois State Medical Society. Chicago. 1879.

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